Access DB# 78465

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Mansfield Examiner # : _____ Date: 10/22/02
Art Unit: 1645 Phone Number 30 5-3394 Serial Number: 9/821949
Mail Box and Bldg/Room Location: 8E12 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need. mej

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: "Comp. containing Novel Cpd. corniculatonin having antifungal properties + process for preparing the same"

Inventors (please provide full names): Solimabi Wahidullah; Siddharth Hariba Bhosale; Maria Lisette De Lumen D'Souza

Earliest Priority Filing Date: 3/30/01

***For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.**

Please search author + inventor names

Isolation of Cpd from mangrove plant Aegiceras corniculatum (Blanco)

antimycotic activity ; antifungal activity

See cls; please return

Point of Contact:
Mona Smith
Technical Information Specialist
CM1 6A01
Tel: 308-3278

Thanks
Mansfield

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Structure (#) _____
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Fulltext _____
Patent Family _____
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Sequence Systems _____
WWW/Internet _____
Other (specify) _____

PTO-1590 (1-2000)

=> fil hcaplu
FILE 'HCAPLUS' ENTERED AT 15:29:40 ON 14 NOV 2002

FILE COVERS 1907 - 14 Nov 2002 VOL 137 ISS 20
FILE LAST UPDATED: 13 Nov 2002 (20021113/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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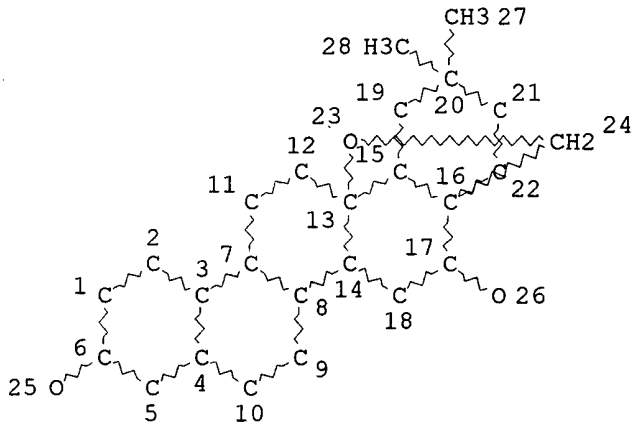

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DEFAULT ECLEVEL IS LIMITED

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NUMBER OF NODES IS 28

STEREO ATTRIBUTES: NONE
L7 212 SEA FILE=REGISTRY SSS FUL L5
L8 375 SEA FILE=HCAPLUS L7
L9 7 SEA FILE=HCAPLUS L8 AND (MANGROVE? OR AEGICER? OR BLANCO OR CORNICUL?)

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L9 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1969:20248 HCAPLUS
DOCUMENT NUMBER: 70:20248
TITLE: Genuine sapogenins of three Primulaceous plants
AUTHOR(S): Kitagawa, Isao; Matsuda, Akiko; Yosioka, Itiro
CORPORATE SOURCE: Fac. Pharm. Sci., Osaka Univ., Toyonaka, Japan
SOURCE: Tetrahedron Lett. (1968), (51), 5377-80
CODEN: TELEAY
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB On repeated modified Smith degradation (NaIO4 oxidn. followed by 3% KOH-EtOH treatment at reflux under N atm.) the saponin of Primula sieboldi roots gave mainly a new aglycon, protoprimulagenin A (I, R1 = R2 = H, R3 = Me) (II), m. 272-3.degree., [.alpha.]D 13.degree. (c 1.0, CHCl3), together with a minor ketonic product (III) (R1 = R2 = H, R3 = Me) (IV), identical with **aegicerin**, m. 257.5-58.degree., [.alpha.]D -25.degree. (c 1.0, CHCl3), and a trace of primulagenin A (V) (R = H) (VI). Acid treatment of II gave a high yield of VI and on acetylation with Ac2O-C5H5N II gave the monoacetate I (R1 = Ac, R2 = H, R3 = Me) (VII), C32H52O4, m. 266-7.degree., [.alpha.]D 15.degree. (c 1.0, CHCl3). Oxidn. of VII with CrO3-C5H5N yielded the monooxo acetate III (R1 = Ac, R2 = H, R3 = Me) (VIII), m. 274-6.degree., [.alpha.]D -20.degree. (c 1.0, CHCl3), oxidized by RuO4 to the oxo-.gamma.-lactone (IX), m. 276-7.degree., [.alpha.]D -107.degree. (c 1.0, CHCl3). The N.M.R. spectrum of IV established its identity with **aegicerin**. Smith degradation of the saponin of roots of P. japonica gave mainly camelliagenin A, V (R = OH) (X) with II as a minor product. To exclude possible epoxide ring opening either by drying the root material or extg. with refluxing MeOH the fresh roots were extd. with MeOH contg. 0.5% C5H5N. The saponin so produced was submitted to Smith degradation and again X was obtained. Smith degradation of the saponin of the fruits of Lysimachia mauritiana yielded priverogenin B (I) (R1 = H, R2 = OH, R3 = Me), m. 275.5-76.degree.. The major genuine sapogenins of P. japonica roots and L. mauritiana fruits differ as to whether the 13-28-oxide bridge is open or closed, whereas the major sapogenins obtained by acid hydrolysis of both saponins are identical. The phenomena may be ascribed to difference of genera or to the parts of the plant material employed.
IT **2571-58-6P 2611-08-7P 2749-23-7P**
18671-62-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

L9 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1968:59763 HCAPLUS
DOCUMENT NUMBER: 68:59763
TITLE: Triterpenoids. III. Structure of cyclamigenin B
AUTHOR(S): Dorchai, R. O.; Thomson, James B.
CORPORATE SOURCE: Univ. Coll., Dublin, Ire.
SOURCE: Tetrahedron (1968), 24(3), 1377-84
CODEN: TETRAB
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB Cyclamigenin B is shown to be 13.beta.,28-epoxy-16,30-dioxo-oleanan-3.beta.-ol (I) by redn. to **aegicerin** (II) and by oxidn. of cyclamigenin B acetate to the corresponding acid III, acetolysis of which yields 3.beta.,28-diacetoxy-16-keto-olean-12-en-30-oic acid. The mass spectra of **aegicerin** acetate (IV), cyclamigenin B acetate (V), and the methyl ester acetate (VI) are discussed.
IT **2571-58-6P 2611-08-7P 2749-23-7P**
18671-62-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

L9 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1965:446412 HCAPLUS
DOCUMENT NUMBER: 63:46412
ORIGINAL REFERENCE NO.: 63:8415h,8416a-d
TITLE: New sapogenin from Cyclamen europaeum
AUTHOR(S): Dorchai, R. O.; Thomson, J. B.
CORPORATE SOURCE: Univ. Coll., Dublin, Ire.
SOURCE: Tetrahedron Letters (1963), (26), 2223-7
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB The amorphous saponin remaining after removal of cyclamin from the corms of C. europaeum gave a group of compds., the cyclamigenins. Cyclamigenin B (I, R = H, R' = CHO) (II) is satd. to C(NO2)4; the N.M.R. spectrum of the acetate I (R = Ac, R' = CHO) (III), confirmed the presence of a CHO group. The ethylene dithioacetal of III, m. 315-16.degree. (327-8.degree.), [.alpha.]D 1.5.degree. (CHCl3), desulfurized with Raney Ni gave **aegicerin** acetate I (R = Ac, R' = Me) (IV), m. 276-8.degree., [.alpha.]D -18.degree. (CHCl3), showing II to be an aldehyde deriv. of **aegicerin** I (R = H, R' = Me), m. 254-6.degree., [.alpha.]D -16 .+-. 2.degree. (CHCl3). Acetolysis of IV gave the diacetate (V, R = R' = Me), m. 210-11.degree., [.alpha.]D -9.degree., hydrolyzed in alkali to give norechynocystenolone, m. 223-4.degree., [.alpha.]D -110.degree. (CHCl3), -96.degree. (dioxane). The CHO group in II is not at C-10 since acetolysis of III yielded an oxo aldehyde V (R = Me, R' = CHO), m. 175.degree. (decompn.), [.alpha.]D 38.degree. (CHCl3), differing from 16,25-dioxoolcan-12-ene-3.beta.,28-diol diacetate V (R = CHO, R' = Me), m. 175-7.degree.. Mass spectral peaks in IV and III suggested that the CHO group in III is at C-14 or C-20. Mild CrO3 oxidn. of III gave the acid I (R = Ac, R' = CO2H) (VI), m. 319-20.degree. (decompn.), [.alpha.]D -3 .+-. 2.degree. (CHCl3); Me ester (VII), m. 289-90.degree. (decompn)., [.alpha.]D 5 .+-. 2.degree. (CHCl3). The rate of sapon. of VII was greater (58-65% after 8 hrs. in 10% KOH in

refluxing MeOH) than that for angular CO2Me groups in the oleanane series (0-20%), but comparable with the rate (40-47%) for a 20.beta.-CO2Me group. VII showed ir bands at 1151, 1195, 1225 cm.-1 characteristic of an axial CO2Me group and excluded a 20.alpha.-CO2Me configuration. The mol. rotation change (43.degree.) on methylation of VI was in good agreement with that (55.degree.) for methylation of the 20.beta.-CO2H group in deoxyglycyrrhetic acid acetate. III is accordingly 30-oxoaegicerin.

IT **2571-58-6**, Egicerin, acetate **2749-23-7**, Egicerin
(prepn. of)

L9 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1964:404349 HCAPLUS
DOCUMENT NUMBER: 61:4349
ORIGINAL REFERENCE NO.: 61:692h,693a-d
TITLE: Chemistry of **Aegiceras** majus. V. Structure of the triterpene **aegicerin**
AUTHOR(S): Rao, K. Venkateswara
CORPORATE SOURCE: Univ. of Connecticut, Storrs
SOURCE: Tetrahedron (1964), 20(4), 973-7
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
GI For diagram(s), see printed CA Issue.

AB cf. CA 57, 16669c, 16670g. A mixt. of 1 g. **aegicerin** (I), 10 ml. C5H5N, and 8 ml. Ac2O kept overnight gave 0.9 g. monoacetate (II), m. 273-5.degree. (CHCl3-MeOH), [.alpha.]30D -17.7.degree. (c 1.07, all in CHCl3). II was unaffected by CrO3-AcOH either at room temp. or at steam-bath temp. A mixt. of 400 mg. II and 25 ml. 10% alc. KOH was refluxed 8 hrs. to give 275 mg. I, m. 245-6.degree. (MeOH), [.alpha.]28D -23.6.degree. (c 0.87). A mixt. of 200 mg. I, 3 ml. C5H5N, and 150 mg. NH2OH.HCl was kept 12 hrs. on a steam bath and 24 hrs. at room temp. to give 150 mg. I oxime (III), m. 244-6.degree. (EtOH-H2O), [.alpha.]26D -6.9.degree.(c 0.73). A mixt. of 50 mg. III, 2 ml. Ac2O, and 100 mg. fused NaOAc was heated 3 hrs. on a steam bath to give 35 mg. III diacetate, m. 210-11.degree. (EtOH). These reactions characterized 2 of the O functions. A soln. of 200 mg. I in 5 ml. C5H5N was treated at 0.degree. with a mixt. of 200 mg. CrO3 and 10 ml. C5H5N, and the mixt. kept 14 hrs. at room temp. to yield 170 mg. ketoaegicerin (IV), m. 258-60.degree. (CHCl3-MeOH), [.alpha.]34D -2.degree. (c 0.98); monoxime m. 260-3.degree. (CHCl3-MeOH); dioxime m. 277-8.degree. (EtOH). Oxidn. of 100 mg. I in 10 ml. Me2CO with 1 ml. CrO3H2SO4 reagent (Curtis, et al., CA 48, 4568i) for 2 hrs. at room temp. also gave IV, which not affected by refluxing 6 hrs. with 5% alc. KOH. A mixt. of 300 mg. I, 300 mg. NaBH4, and 30 ml. MeOH kept 15 hrs. at room temp., treated with 3 ml. HCl and 20 ml. H2O, and warmed 10 min. on a steam bath gave 210 mg. genin A (V), m.p. and mixed m.p. 240-2.degree. (C6H6-Et2O), [.alpha.]26D 43.1.degree. (c 0.43) (CA 54, 9291a); triacetate m.p. and mixed m.p. 158-60.degree. (MeOH). The proposed .beta.-amyrin structure for I was supported by the optical rotatory dispersion curve of II, max. of which are given. The presence of an ether function was proven by conversion of II into a diacetate. Thus, a mixt. of 150 mg. II, 5 ml. Ac2O, and 70 mg. p-MeC6H4SO3H was refluxed 1.5 hrs. and kept overnight at room temp. to give 40 mg. 3.beta.,28-diacetoxy-16-oxo-12-oleanene, m.p. and mixed m.p. 210-11.degree. (MeOH), [.alpha.]28D -7.6.degree. (c 0.3), and 15 mg. putative VI, m. 219-20.degree. (MeOH). The proposed structure is

supported by the 60 Mc. nuclear magnetic resonance spectrum of I, max. of which are given. Infrared max. are given for I-IV.

IT **2571-58-6**, Egicerin, acetate
(prepn. of)

IT **2749-23-7**, Egicerin
(structure of)

L9 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1963:462611 HCAPLUS
DOCUMENT NUMBER: 59:62611
ORIGINAL REFERENCE NO.: 59:11572c-e
TITLE: Structure of the triterpene **aegicerin**
AUTHOR(S): Rao, K. Venkateswara
CORPORATE SOURCE: Indian Inst. Biochem. Exptl. Med., Calcutta
SOURCE: Chem. Ind. (London) (1963), (37), 1523-4
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

GI For diagram(s), see printed CA Issue.

AB **Aegicerin** (I), C30H46O8, m. 254-6.degree., [.alpha.]28D -23.6.degree. (all in CHCl3), easily formed a monoacetate (II), m. 273-5.degree., [.alpha.]30D -17.7.degree., and, under forcing conditions, an oxime, m. 244-6.degree., [.alpha.]26D -6.9.degree.. With acetic anhydride-sodium acetate, **aegicerin** oxime gave an oxime diacetate, C34H51NO5, m. 210-11.degree., indicating the keto nature of the carbonyl function, further supported by the stability of **aegicerin** acetate to CrO3 oxidn. II with Ac2O and p-MeC6H4SO3H gave 3.beta.,28-diacetoxy-16-oxoolean-12-ene, m. 210-11.degree., [.alpha.]28D -7.6.degree.. CrO3 oxidn. of I gave ketoaegicerin, m. 258-60.degree., [.alpha.]34D -2.degree.; oxime m. 260-3.degree.; dioxime m. 277-8.degree.. I with NaBH4 gave 3.beta.,16.alpha.,28-trihydroxyolean-12-ene, m. 240-2.degree., [.alpha.]26D 43.1.degree.; triacetate m. 158-60.degree., [.alpha.]26D -9.degree.. Optically rotatory and infrared studies further confirmed the structure of I.

IT **2571-58-6**, Egicerin, acetate
(prepn. of)

IT **2749-23-7**, Egicerin
(structure of)

L9 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1962:483411 HCAPLUS
DOCUMENT NUMBER: 57:83411
ORIGINAL REFERENCE NO.: 57:16670g-h
TITLE: Chemistry of **Aegiceras** majus. IV. Some minor constituents
AUTHOR(S): Rao, K. Venkateswara; Bose, P. K.
CORPORATE SOURCE: Indian Inst. Biochem. Exptl. Med., Calcutta
SOURCE: Ann. Biochem. Exptl. Med. (Calcutta) (1961), 21, 354-8
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB cf. CA 54, 9291a; preceding abstr. The following compds. were isolated from the bark of A. majus by extn. with petr. ether and chromatography on Al2O3: .alpha.-spinasterol, stigmasterol, syringic acid, and a new triterpene, **aegicerin** (I). From an ext. of 3 kg. bark, 300 mg. I diacetate was isolated as cryst. leaflets, m. 272-4.degree.,

[.alpha.]34D -18.4.degree., C34H52O5, yellow with tetranitromethane in CHCl3, pink with Liebermann-Burchard reagent. From it 150 mg. I was isolated by refluxing 3 hrs. with 5% alc. KOH. I was crystd. from MeOH, needles, m. 254-6.degree., [.alpha.]35D -20.7.degree., C30H48O3.

IT **2749-23-7**, Egicerin
(prepn. of)

L9 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1962:483409 HCAPLUS
DOCUMENT NUMBER: 57:83409
ORIGINAL REFERENCE NO.: 57:16669c-i,16670a-c
TITLE: Chemistry of **Aegiceras** majus. III. Structure of **aegiceradiol**
AUTHOR(S): Rao, K. Venkateswara; Bose, P. K.
CORPORATE SOURCE: Indian Inst. Biochem. Exptl. Med., Calcutta
SOURCE: Tetrahedron (1962), 18, 461-4
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
GI For diagram(s), see printed CA Issue.

AB cf. CA 57, 4701c. Air-dried powd. bark (1.2 kg., A. majus) exhaustively extd. with 90% alc. and the dark red residue repeatedly washed with Et2O, taken up in 1 l. 50% alc. and refluxed 4 hrs. with 200 ml. concd. HCl, filtered and the washed and dried aglycones extd. 30 hrs. with Et2O (Soxhlet), the ext. washed with 2% aq. NaOH and H2O and the residue on evapn. extd. with 200 ml. 3:1 C6H6-Et2O, filtered from 6.5 g. genin-A (I, m. 230-5.degree.) and the filtrate chromatographed on 400 g. Al2O3, eluted with 1 l. 1:1 ligroine-C6H6 to give 0.45 g. **aegiceradienol** (II), m. 185-8.degree. (CHCl3-MeOH), [.alpha.]D 74.degree. (c 0.83) and eluted with 1.5 l. C6H6 gave 0.2 g. needles of **aegicerin**, C30H48O3, m. 254-6.degree., [.alpha.]35D -20.7.degree. (c 1.54). Further elution of the column with 500 ml. 1:4 Et2O-C6H6 gave 0.15 g. III (**aegiceradiol**), m. 220-30.degree., and elution with addn. solvent mixt. (1 l.) and 1 l. 1:1 Et2O-C6H6 gave 0.5 g. addnl. I. III (150 mg.) acetylated 3 hrs. at 100.degree. in 6 ml. 1:1 Ac2O-C5H5N and the product chromatographed in C6H6 over 20 g. Al2O3, eluted with 100 ml. 3:7 C6H6-ligroine and the fraction crystd. from CHCl3-MeOH yielded 120 mg. diacetate (IV), C34H52O4, m. 214-15.degree., [.alpha.]33D 52.7.degree. (c 0.87), yellow coloration with C(NO2)4 in CHCl3. IV (100 mg.) refluxed 3 hrs. in 15 ml. 5% aq. KOH and the dild. soln. extd. with Et2O, the product chromatographed from C6H6 over 15 g. Al2O3 and eluted with 300 ml. 1:9 Et2O-C6H6 gave 75 mg. III, m. 236-8.degree. (Me2CO)2, [.alpha.]33D 40.3.degree. (c 0.62); dibenzoate m. 217.degree., [.alpha.]33D 45.5.degree. (c 0.9). IV (150 mg.) in 30 ml. MeOH refluxed 45 min. with 300 mg. K2CO3 in 4 ml. 1:1 H2O-dioxane and the product chromatographed from C6H6 over Al2O3, the column washed free from IV with 50 ml. 1:4 C6H6-ligroine and eluted with 200 ml. C6H6 gave 70 mg. III 3-monoacetate (V), m. 203-4.degree. (MeOH), [.alpha.]36D 44.1.degree. (c 0.34). Further elution with 100 ml. 1:4 Et2O-C6H6 gave III. V (60 mg.) in 10 ml. AcOH treated dropwise in 30 min. with 100 mg. CrO3 in 3 ml. 90% AcOH and the mixt. kept 16 hrs. at 35.degree., the excess CrO3 destroyed with MeOH and the mixt. poured into ice-H2O, extd. with Et2O and the residue on evapn. chromatographed from C6H6 on Al2O3 gave VI, C32H48O3, m. 246-8.degree., giving no color in the Zimmermann test. IV (100 mg.) in 30 ml. AcOH hydrogenated with 60 mg. prereduced PtO2 in 12 hrs. and the filtered soln.

evapd., the residue chromatographed over Al2O3 and crystd. from alc. gave 80 mg. erythrodiol diacetate, m. 184-6.degree., [.alpha.]34D 53.6.degree. (c 0.68), giving a yellow color with C(NO2)4 in CHCl3. I (2.5 g.) kept 24 hrs. at 0.degree. in 10 ml. 7:3 C5H5N-Ac2O and the product chromatographed in C6H6 over 100 g. Al2O3, eluted with 1 l. 1:1 C6H6-ligroine and the fraction crystd. from MeOH gave a diacetate (VII), C34H54O5, m. 212-13.degree., [.alpha.]25D 30.4.degree. (c 2.5). The column eluted with 2.5 l. C6H6 and 1 l. 1:9 Et2O-C6H6 and the product (1 g.) repeatedly crystd. from CHCl3-MeOH gave another diacetate (VIII), C34H54O5, m. 264-6.degree., [.alpha.]32D 1.93.degree. (c 4.66). VII (200 mg.) in 5 ml. C5H5N kept 24 hrs. at 35.degree. with 200 mg. CrO3 in 10 ml. C5H5N and the mixt. poured onto crushed ice, the washed (5% HCl, H2O) and dried ppt. chromatographed over Al2O3 and the fraction crystd. from MeOH gave a neutral ketone, 16-oxoerythrodiol diacetate, m. 211-12.degree. [.alpha.]35D -7.1.degree. (c 0.63), showing no Zimmermann color reaction and giving no oxime. VII (400 mg.) kept 16 hrs. at 35.degree. in 10 ml. C5H5N contg. 3 ml. POCl3 and the mixt. heated 1 hr. on a steam bath, dild. with H2O and extd. with Et2O, the product chromatographed on 20 g. Al2O3 gave IV, m. 214-15.degree., [.alpha.]32D 52.1.degree. (c 1.44). VII presented an interesting example of preferential acetylation of an axial OH to that of a primary carbinol under mild acetylating conditions. III, 3.beta.,28-dihydroxyolean-12,15-diene, a new triterpene diol may be the biogenetic precursor to its C29-congener II.

IT **2749-23-7**, Egicerin
(prepn. of)

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DICTIONARY FILE UPDATES: 13 NOV 2002 HIGHEST RN 473527-47-8

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties

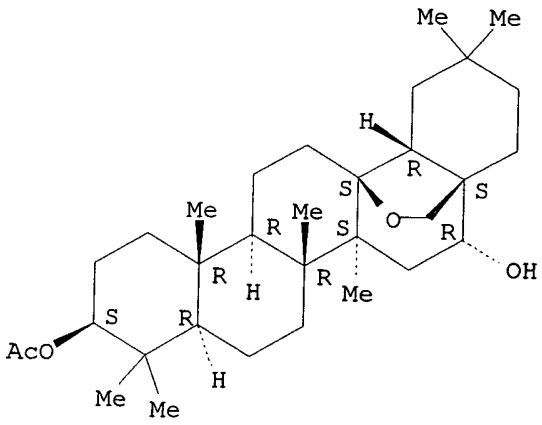
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> s e1-e4
1 2749-23-7/BI
(2749-23-7/RN)
1 2571-58-6/BI
(2571-58-6/RN)
1 18671-62-0/BI
(18671-62-0/RN)
1 2611-08-7/BI
(2611-08-7/RN)
L10 4 (2749-23-7/BI OR 2571-58-6/BI OR 18671-62-0/BI OR 2611-08-7/BI)

=> d ide can l10 tot

L10 ANSWER 1 OF 4 REGISTRY COPYRIGHT 2002 ACS
RN **18671-62-0** REGISTRY
CN Oleanane-3,16-diol, 13,28-epoxy-, 3-acetate, (3.beta.,16.alpha.)- (9CI)
(CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2H,5H-14a,4a-(Epoxymethano)picene, oleanane-3,16-diol deriv.
CN Oleanane-3.beta.,16.alpha.-diol, 13,28-epoxy-, 3-acetate (8CI)
FS STEREOSEARCH
MF C32 H52 O4
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

6 REFERENCES IN FILE CA (1962 TO DATE)
6 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 117:230129

REFERENCE 2: 112:195216

REFERENCE 3: 81:49877

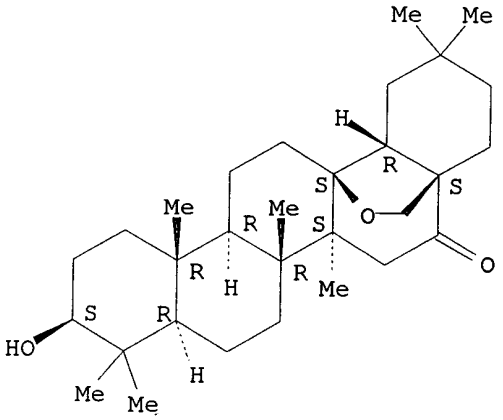
REFERENCE 4: 77:164881

REFERENCE 5: 70:20248

REFERENCE 6: 68:59763

L10 ANSWER 2 OF 4 REGISTRY COPYRIGHT 2002 ACS
RN **2749-23-7** REGISTRY
CN Oleanan-16-one, 13,28-epoxy-3-hydroxy-, (3.beta.)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2H,5H-14a,4a-(Epoxymethano)picene, oleanan-16-one deriv.
CN Egicerin (7CI)
CN Oleanan-16-one, 13,28-epoxy-3.beta.-hydroxy- (8CI)
OTHER NAMES:
CN Aegicerin
CN Egicerine
FS STEREOSEARCH
MF C30 H48 O3
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
(*File contains numerically searchable property data)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

15 REFERENCES IN FILE CA (1962 TO DATE)
15 REFERENCES IN FILE CAPLUS (1962 TO DATE)
6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 96:85881

REFERENCE 2: 94:175406

REFERENCE 3: 94:157159

REFERENCE 4: 81:91875

REFERENCE 5: 77:164881

REFERENCE 6: 70:20248

REFERENCE 7: 68:59763

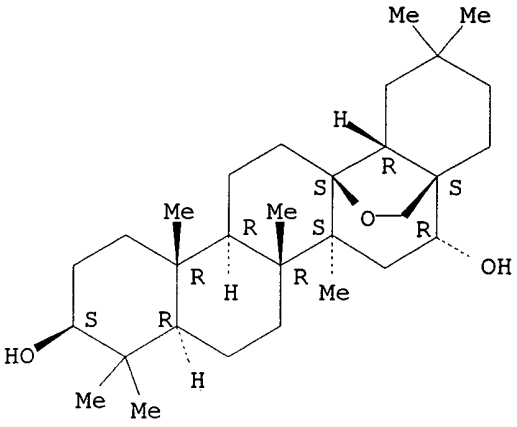
REFERENCE 8: 63:46412

REFERENCE 9: 61:4349

REFERENCE 10: 61:4348

L10 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2002 ACS
RN **2611-08-7** REGISTRY
CN Oleanane-3,16-diol, 13,28-epoxy-, (3.beta.,16.alpha.)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2H,5H-14a,4a-(Epoxymethano)picene, oleanane-3,16-diol deriv.
CN Cyclamiretin A, 25-deoxy- (7CI)
CN Oleanane-3.beta.,16.alpha.-diol, 13,28-epoxy- (8CI)
OTHER NAMES:
CN Protoprimulagenin A
FS STEREOSEARCH
DR 41530-97-6
MF C30 H50 O3
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, NAPRALERT, TOXCENTER
(*File contains numerically searchable property data)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

20 REFERENCES IN FILE CA (1962 TO DATE)
20 REFERENCES IN FILE CAPLUS (1962 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:125379

REFERENCE 2: 119:65641

REFERENCE 3: 112:195216

REFERENCE 4: 107:172512

REFERENCE 5: 99:67516

REFERENCE 6: 96:85881

REFERENCE 7: 94:175406

REFERENCE 8: 94:157159

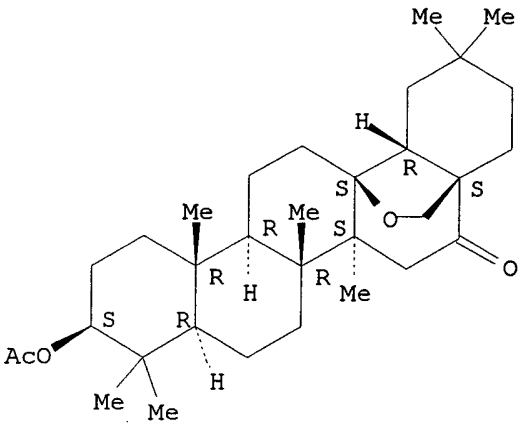
REFERENCE 9: 87:152512

REFERENCE 10: 87:152507

L10 ANSWER 4 OF 4 REGISTRY COPYRIGHT 2002 ACS
RN **2571-58-6** REGISTRY
CN Oleanan-16-one, 3-(acetyloxy)-13,28-epoxy-, (3.beta.)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2H,5H-14a,4a-(Epoxymethano)picene, oleanan-16-one deriv.
CN Egicerin, acetate (7CI)
CN Oleanan-16-one, 13,28-epoxy-3.beta.-hydroxy-, acetate (8CI)
FS STEREOSEARCH

MF C32 H50 O4
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
(*File contains numerically searchable property data)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

8 REFERENCES IN FILE CA (1962 TO DATE)
8 REFERENCES IN FILE CAPLUS (1962 TO DATE)
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 94:175406

REFERENCE 2: 77:164881

REFERENCE 3: 70:20248

REFERENCE 4: 68:59763

REFERENCE 5: 63:46412

REFERENCE 6: 61:4349

REFERENCE 7: 61:4348

REFERENCE 8: 59:62611

=> fil hcaplu
FILE 'HCAPLUS' ENTERED AT 15:33:04 ON 14 NOV 2002

FILE COVERS 1907 - 14 Nov 2002 VOL 137 ISS 20
FILE LAST UPDATED: 13 Nov 2002 (20021113/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

CAS roles have been modified effective December 16, 2001. Please
check your SDI profiles to see if they need to be revised. For
information on CAS roles, enter HELP ROLES at an arrow prompt or use
the CAS Roles thesaurus (/RL field) in this file.

=> fil hcaplu
FILE 'HCAPLUS' ENTERED AT 15:35:11 ON 14 NOV 2002
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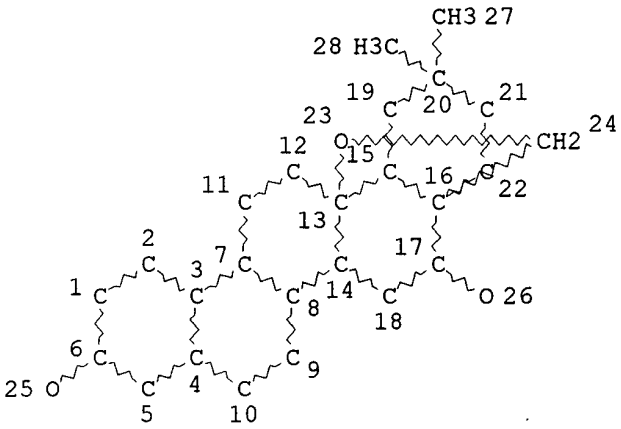
FILE COVERS 1907 - 14 Nov 2002 VOL 137 ISS 20
FILE LAST UPDATED: 13 Nov 2002 (20021113/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

CAS roles have been modified effective December 16, 2001. Please
check your SDI profiles to see if they need to be revised. For
information on CAS roles, enter HELP ROLES at an arrow prompt or use
the CAS Roles thesaurus (/RL field) in this file.

=> d stat que
L5 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 28

STEREO ATTRIBUTES: NONE
L7 212 SEA FILE=REGISTRY SSS FUL L5
L8 375 SEA FILE=HCAPLUS L7
L9 7 SEA FILE=HCAPLUS L8 AND (MANGROVE? OR AEGICER? OR BLANCO OR CORNICUL?)
L11 5 SEA FILE=HCAPLUS (?MYCO? OR ?FUNG?) AND L8
L12 5 SEA FILE=HCAPLUS L11 NOT L9

=> d ibib abs hitrn l12 1-5

L12 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:412378 HCAPLUS
DOCUMENT NUMBER: 135:58388
TITLE: Antimicrobial activities of saponins of pericarps of Sapindus mukurossi on dermatophytes
AUTHOR(S): Tamura, Yukiyoshi; Mizutani, Kenji; Ikeda, Takao; Ohtani, Kazuhiro; Kasai, Ryoji; Yamasaki, Kazuo; Tanaka, Osamu
CORPORATE SOURCE: Maruzen Pharmaceuticals Co., Ltd., Hiroshima, Ashina-gun, Shinichi-cho, Sagata, 729-3102, Japan
SOURCE: Natural Medicines (Tokyo, Japan) (2001), 55(1), 11-16
CODEN: NMEDEO; ISSN: 1340-3443
PUBLISHER: Japanese Society of Pharmacognosy
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Monodesmosides of hederagenin from pericarps of Sapindus mukurossi exhibited potent antimicrobial activities on dermatophytes; Epidermophyton

floccosum, Trichophyton mentagrophytes, T. rubrum, Sabouraudites canis, and Candida albicans. The structure-activity relationship was also studied. The saponins of the pericarps seem to be promising as an ingredient of cosmetics for protection of skin from **dermatomycosis**.

IT **20736-08-7**, Saikosaponin c **20736-09-8**, Saikosaponin a **20874-52-6**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(antimicrobial activities of saponins of pericarps of Sapindus mukurossi on dermatophytes)

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:664360 HCAPLUS
DOCUMENT NUMBER: 130:75767
TITLE: In vitro **antifungal** and cytotoxic activity of triterpene saponosides and quinoid pigments from Lysimachia vulgaris L.
AUTHOR(S): Podolak, I.; Elas, M.; Cieszka, K.
CORPORATE SOURCE: Department of Pharmacognosy, Collegium Medicum, Jagiellonian University, Krakow, 30-688, Pol.
SOURCE: Phytotherapy Research (1998), 12(Suppl. 1, Second International Symposium on Natural Drugs, 1997), S70-S73
CODEN: PHYREH; ISSN: 0951-418X
PUBLISHER: John Wiley & Sons Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Lysimachia vulgaris L. (Primulaceae) has been used in the folk medicine of Europe and Asia in the treatment of fever, ulcers, diarrhea and as an analgesic and antiinflammatory agent. From the underground parts of the plant a benzoquinone pigment and triterpene saponosides were isolated. Cytotoxic and **antifungal** activity of these compds. were tested in vitro against human and mouse melanoma cells and the yeast Candida albicans resp. The results showed that saponoside B exerted cytotoxicity esp. towards human melanoma cells. The pigment was more active as an **antifungal** agent.

IT **126882-54-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**antifungal** and cytotoxic activity of triterpenoid saponosides and quinoid pigments from Lysimachia vulgaris)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:620304 HCAPLUS
DOCUMENT NUMBER: 123:17644
TITLE: Glycoside-bearing liposomal delivery systems against macrophage-associated disorders involving **Mycobacterium** leprae and **Mycobacterium**

tuberculosis

AUTHOR(S): Medda, S.; Das, N.; Mahato, S. B.; Mahadevan, P. R.; Basu, M. K.

CORPORATE SOURCE: Biomembrane Div., Indian Inst. Chem. Biology, Calcutta, 700 032, India

SOURCE: Indian Journal of Biochemistry & Biophysics (1995), 32(3), 147-51
CODEN: IJBBBQ; ISSN: 0301-1208

PUBLISHER: Publications & Information Directorate, CSIR

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Asiaticoside, a plant glycoside with rhamnose as end sugar and having microbicidal properties was tested against **Mycobacterium** leprae and **Mycobacterium** tuberculosis both in vivo and in vitro. As rhamnose is reported to have no tissue specificity, corchorusin D having glucose as end sugar was used for targeting with an equimolar proportion of asiaticoside in liposomal form for testing the drug value. Results showed that liposomal asiaticoside had better microbicidal property against M. leprae and M. tuberculosis when compared to that of free asiaticoside whereas liposomes contg. asiaticoside and corchorusin D were found to be equally or more active in comparison to liposomal asiaticoside alone. It is interred that appropriate glycosides, if used in liposomal form (incorporated or covalently grafted) have enhanced drug efficacy and such glycoside bearing liposomes as targeted delivery systems could be used for chemotherapeutic control of several other diseases.

IT **108886-04-0**, Corchorusin D
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(glycoside-bearing liposomal delivery systems against macrophage-assocd. disorders involving **Mycobacterium** leprae and M. tuberculosis)

L12 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1993:465641 HCAPLUS

DOCUMENT NUMBER: 119:65641

TITLE: Molluscicidal and **antifungal** triterpenoid saponins from Rapanea melanophloeos leaves

AUTHOR(S): Ohtani, Kazuhiro; Mavi, Steven; Hostettmann, Kurt

CORPORATE SOURCE: Inst. Pharmacogn. Phytochim., Univ. Lausanne, Lausanne, CH-1015, Switz.

SOURCE: Phytochemistry (1993), 33(1), 83-6
CODEN: PYTCAS; ISSN: 0031-9422

DOCUMENT TYPE: Journal

LANGUAGE: English

AB From the methanolic ext. of leaves of Rapanea melanophloeos, a mollusicidial and **antifungal** triterpenoid saponin has been isolated and identified as sakurasosaponin by spectral and chem. methods. Three other saponins, one of which showed weak molluscicidal activity, have also been isolated and identified as derivs. of sakurasosaponin.

IT **59527-84-3**, Sakurasosaponin
RL: BIOL (Biological study)
(from Rapanea melanophloeos, structure and **antifungal** and molluscicidal activity of)

IT **2611-08-7P 148843-61-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

L12 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1966:14490 HCAPLUS
DOCUMENT NUMBER: 64:14490
ORIGINAL REFERENCE NO.: 64:2687a-c
TITLE: Antimicrobial action of saponins
AUTHOR(S): Tschesche, R.; Wulff, G.
CORPORATE SOURCE: Univ. Bonn, Germany
SOURCE: Z. Naturforsch. (1965), 20b(6), 543-6
DOCUMENT TYPE: Journal
LANGUAGE: German
AB cf. CA 62, 2668f. Several tests (Kavanagh CA 59, 1857a; Meyer-Rohn, et al., CA 55, 1932c) were used to show the antimicrobial and cytostatic action of 15 saponins by 7 micro-organisms. Filter plates were required for 4 more saponins, since these were not water sol. The various saponins were collected from seeds, tubers, roots, rhizomes, bark, and leaves. Digitonin, lanatonin, parillin, tomatine, soladulcidine tetraoside, and solanine have, in spite of an inactivity towards bacteria, had a strong action towards several **fungal** strains. Cyclamine and primulin possessed both **antimycotic** and bacteriostatic activity, and had the widest influence spectrum of all saponins tested. All the other saponins, except for quillajosid, showed activity towards Trichoderma mentagrophytes. Any similarity in activity among the saponins tested coincided with a similarity in chem. structure. There was no relation with hemolytic index. Digitonin and lanatonin have high activity towards many **fungi**.
IT **65312-86-9**, Primulasaponin
(bactericidal and **fungicidal** activity of)

=> select hit rn l12 1-5
E5 THROUGH E13 ASSIGNED

=> fil reg
FILE 'REGISTRY' ENTERED AT 15:36:20 ON 14 NOV 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 13 NOV 2002 HIGHEST RN 473527-47-8
DICTIONARY FILE UPDATES: 13 NOV 2002 HIGHEST RN 473527-47-8

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

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=> s e5-e13
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               (108886-04-0/RN)
             1 126882-54-0/BI
               (126882-54-0/RN)
             1 148843-61-2/BI
               (148843-61-2/RN)
             1 20736-08-7/BI
               (20736-08-7/RN)
             1 20736-09-8/BI
               (20736-09-8/RN)
             1 20874-52-6/BI
               (20874-52-6/RN)
             1 2611-08-7/BI
               (2611-08-7/RN)
             1 59527-84-3/BI
               (59527-84-3/RN)
             1 65312-86-9/BI
               (65312-86-9/RN)
L13          9 (108886-04-0/BI OR 126882-54-0/BI OR 148843-61-2/BI OR 20736-08-
               7/BI OR 20736-09-8/BI OR 20874-52-6/BI OR 2611-08-7/BI OR 59527-
               84-3/BI OR 65312-86-9/BI)

=> d ide can l13 tot

L13  ANSWER 1 OF 9  REGISTRY  COPYRIGHT 2002 ACS
RN   148843-61-2  REGISTRY
CN   .beta.-D-Glucopyranosiduronic acid, (3.beta.,16.alpha.)-13,28-epoxy-16-
     hydroxyoleanan-3-yl O-6-deoxy-.alpha.-L-mannopyranosyl-(1.fwdarw.2)-O-6-
     deoxy-.alpha.-L-mannopyranosyl-(1.fwdarw.2)-O-.beta.-D-galactopyranosyl-
     (1.fwdarw.3)-O-[.beta.-D-glucopyranosyl-(1.fwdarw.2)]-, methyl ester (9CI)
     (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   2H,5H-14a,4a-(Epoxymethano)picene, .beta.-D-glucopyranosiduronic acid
     deriv.
CN   Oleanane, .beta.-D-glucopyranosiduronic acid deriv.
MF   C61 H100 O27
SR   CA
LC   STN Files:   CA, CAPLUS
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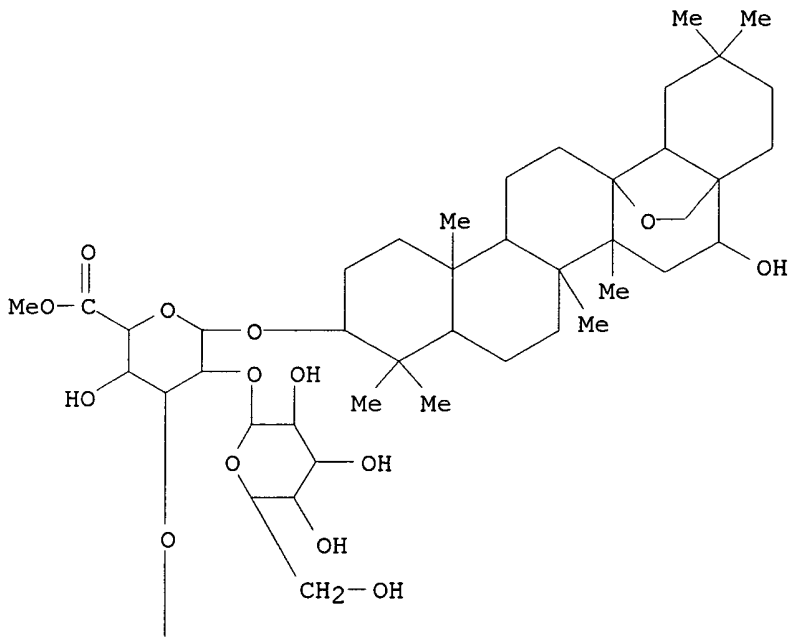
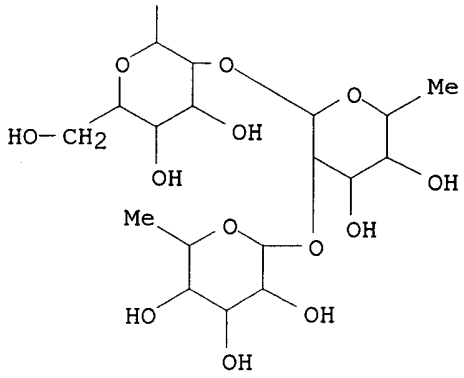
PAGE 1-A



PAGE 2-A



1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 119:65641

L13 ANSWER 2 OF 9 REGISTRY COPYRIGHT 2002 ACS
RN **126882-54-0** REGISTRY
CN .alpha.-L-Arabinopyranoside, (3.beta.,16.alpha.)-13,28-epoxy-16-

hydroxyoleanan-3-yl O-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-.beta.-D-xylopyranosyl-(1.fwdarw.2)-.beta.-D-glucopyranosyl-(1.fwdarw.4)]- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2H,5H-14a,4a-(Epoxymethano)picene, .alpha.-L-arabinopyranoside deriv.

CN Oleanane, .alpha.-L-arabinopyranoside deriv.

OTHER NAMES:

CN Lysikokianoside 1

FS STEREOSEARCH

DR 160517-92-0

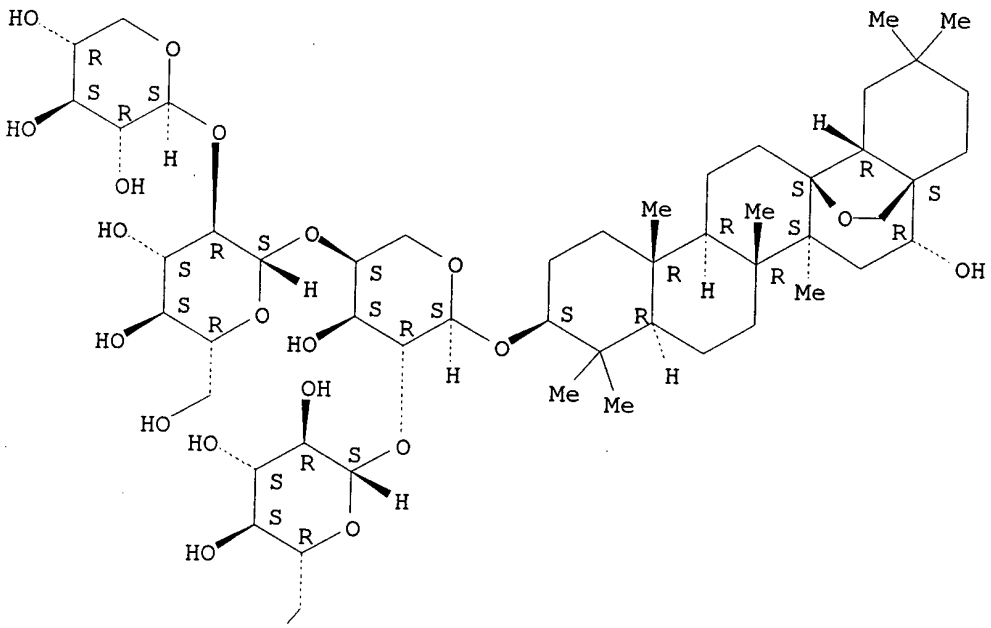
MF C52 H86 O21

SR CA

LC STN Files: BEILSTEIN*, CA, CAPLUS, TOXCENTER
(*File contains numerically searchable property data)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 2-A

4 REFERENCES IN FILE CA (1962 TO DATE)
4 REFERENCES IN FILE CAPLUS (1962 TO DATE)

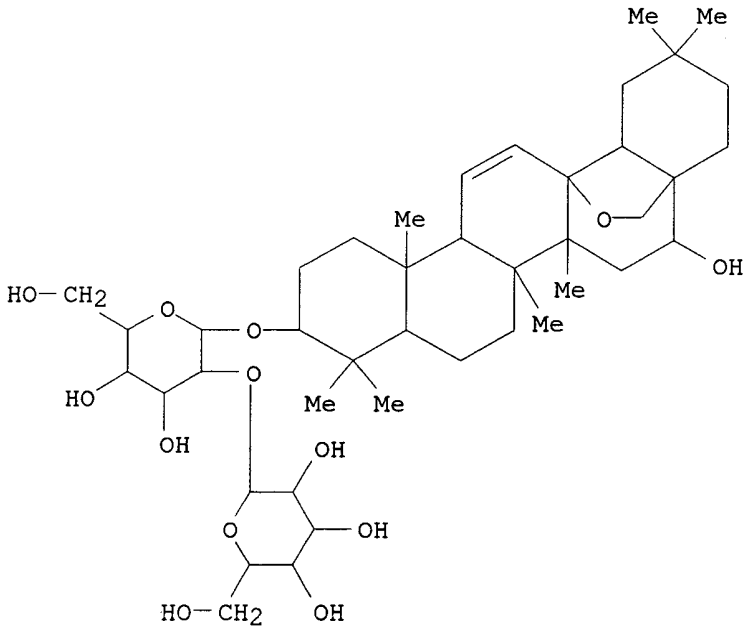
REFERENCE 1: 132:191717

REFERENCE 2: 130:75767

REFERENCE 3: 124:82092

REFERENCE 4: 112:195234

L13 ANSWER 3 OF 9 REGISTRY COPYRIGHT 2002 ACS
RN **108886-04-0** REGISTRY
CN .beta.-D-Galactopyranoside, (3.beta.,16.beta.)-13,28-epoxy-16-hydroxyolean-11-en-3-yl 2-O-.beta.-D-glucopyranosyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2H,5H-14a,4a-(Epoxymethano)picene, .beta.-D-galactopyranoside deriv.
CN Oleanane, .beta.-D-galactopyranoside deriv.
OTHER NAMES:
CN Corchorusin D
MF C42 H68 O13
SR CA
LC STN Files: AGRICOLA, BEILSTEIN*, CA, CAPLUS, MEDLINE, NAPRALERT, PROMT, TOXCENTER
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5 REFERENCES IN FILE CA (1962 TO DATE)

5 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 134:353178

REFERENCE 2: 123:17644

REFERENCE 3: 119:34197

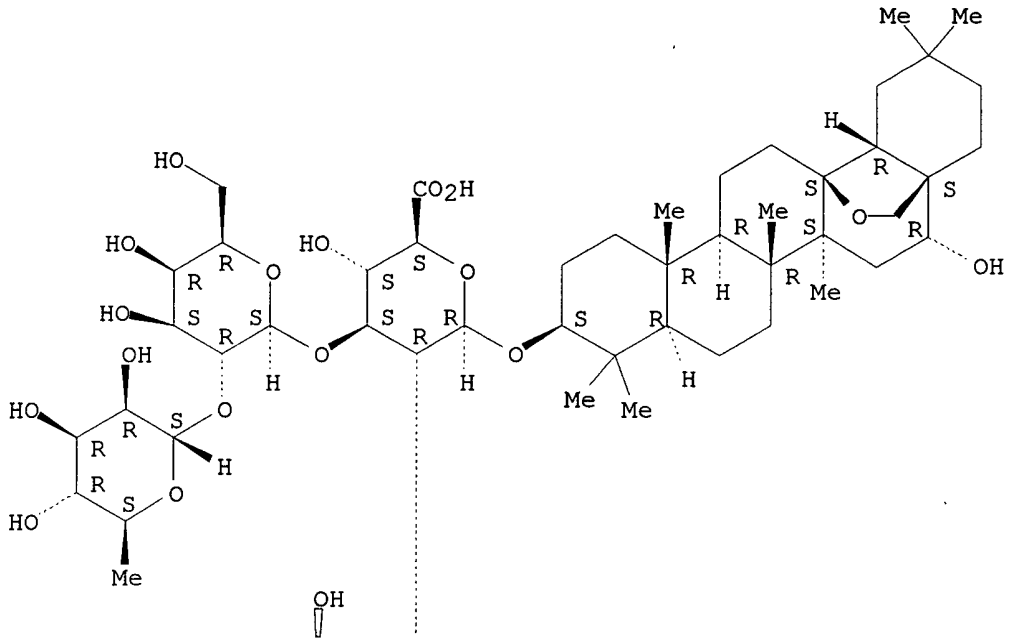
REFERENCE 4: 114:68943

REFERENCE 5: 107:36612

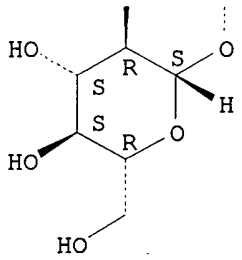
L13 ANSWER 4 OF 9 REGISTRY COPYRIGHT 2002 ACS
RN **65312-86-9** REGISTRY
CN .beta.-D-Glucopyranosiduronic acid, (3.beta.,16.alpha.)-13,28-epoxy-16-hydroxyoleanan-3-yl O-6-deoxy-.alpha.-L-mannopyranosyl-(1.fwdarw.2)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-[.beta.-D-glucopyranosyl-(1.fwdarw.2)]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2H,5H-14a,4a-(Epoxymethano)picene, .beta.-D-glucopyranosiduronic acid deriv.
CN Oleanane, .beta.-D-glucopyranosiduronic acid deriv.
OTHER NAMES:
CN Primulasaponin
CN Saponin PS 4 from Primula elatior
FS STEREOSEARCH
MF C54 H88 O23
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



5 REFERENCES IN FILE CA (1962 TO DATE)
5 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 129:52122

REFERENCE 2: 117:230129

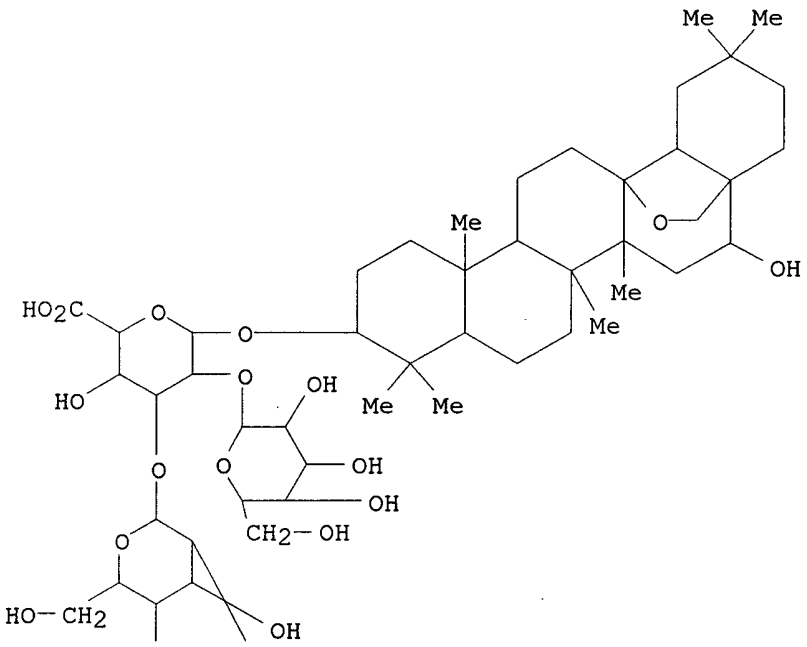
REFERENCE 3: 99:67516

REFERENCE 4: 87:152512

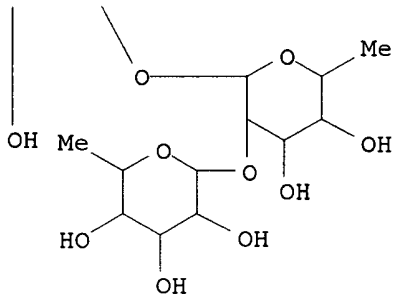
REFERENCE 5: 64:14490

L13 ANSWER 5 OF 9 REGISTRY COPYRIGHT 2002 ACS
RN **59527-84-3** REGISTRY
CN .beta.-D-Glucopyranosiduronic acid, (3.beta.,16.alpha.)-13,28-epoxy-16-hydroxyoleanan-3-yl O-6-deoxy-.alpha.-L-mannopyranosyl-(1.fwdarw.2)-O-6-deoxy-.alpha.-L-mannopyranosyl-(1.fwdarw.2)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-[.beta.-D-glucopyranosyl-(1.fwdarw.2)]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2H,5H-14a,4a-(Epoxymethano)picene, .beta.-D-glucopyranosiduronic acid deriv.
CN Oleanane, .beta.-D-glucopyranosiduronic acid deriv.
OTHER NAMES:
CN Sakurasosaponin
MF C60 H98 O27
LC STN Files: AGRICOLA, BEILSTEIN*, BIOSIS, CA, CAPLUS, DDFU, DRUGU, NAPRALERT, TOXCENTER
(*File contains numerically searchable property data)

PAGE 1-A



PAGE 2-A



16 REFERENCES IN FILE CA (1962 TO DATE)
16 REFERENCES IN FILE CAPLUS (1962 TO DATE)

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REFERENCE 2: 128:124596

REFERENCE 3: 126:325444

REFERENCE 4: 119:65641

REFERENCE 5: 107:2738

REFERENCE 6: 104:218842

REFERENCE 7: 102:149680

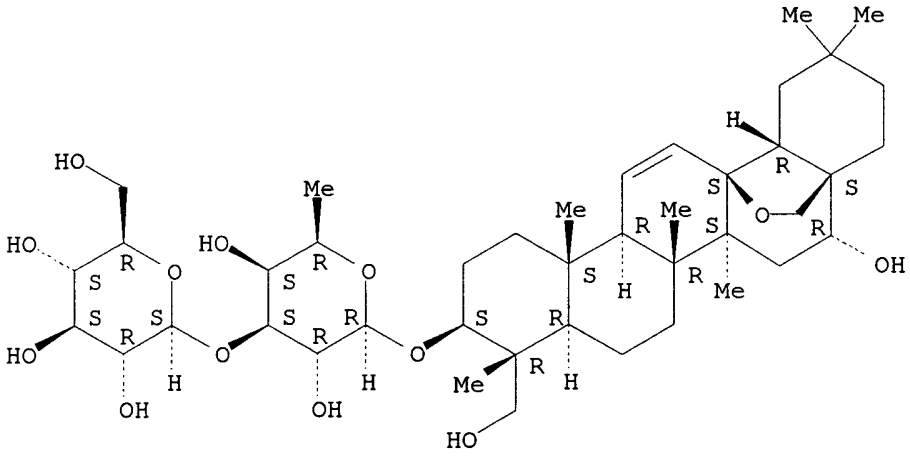
REFERENCE 8: 96:85881

REFERENCE 9: 94:175406

REFERENCE 10: 94:157159

L13 ANSWER 6 OF 9 REGISTRY COPYRIGHT 2002 ACS
RN **20874-52-6** REGISTRY
CN .beta.-D-Galactopyranoside, (3.beta.,4.alpha.,16.alpha.)-13,28-epoxy-16,23-dihydroxyolean-11-en-3-yl 6-deoxy-3-O-.beta.-D-glucopyranosyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2H,5H-14a,4a-(Epoxymethano)picene, .beta.-D-galactopyranoside deriv.
CN Oleanane, .beta.-D-galactopyranoside deriv.
CN Saikosaponin D (8CI)
FS STEREOSEARCH
MF C42 H68 O13
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CSCHEM, DDFU, DRUGU, EMBASE, MEDLINE, NAPRALERT, RTECS*, SPECINFO, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

182 REFERENCES IN FILE CA (1962 TO DATE)
182 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 136:267996

REFERENCE 2: 136:166103

REFERENCE 3: 136:139699

REFERENCE 4: 136:63649

REFERENCE 5: 135:236052

REFERENCE 6: 135:58388

REFERENCE 7: 134:172820

REFERENCE 8: 134:2648

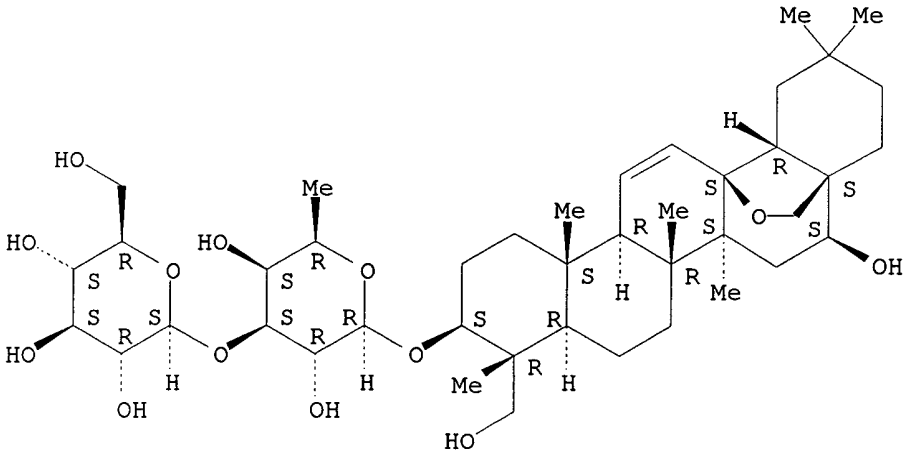
REFERENCE 9: 133:355317

REFERENCE 10: 133:293488

L13 ANSWER 7 OF 9 REGISTRY COPYRIGHT 2002 ACS
RN **20736-09-8** REGISTRY
CN .beta.-D-Galactopyranoside, (3.beta.,4.alpha.,16.beta.)-13,28-epoxy-16,23-dihydroxyolean-11-en-3-yl 6-deoxy-3-O-.beta.-D-glucopyranosyl- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:
CN 2H,5H-14a,4a-(Epoxymethano)picene, .beta.-D-galactopyranoside deriv.
CN Oleanane, .beta.-D-galactopyranoside deriv.
CN Saikosaponin A (8CI)
FS STEREOSEARCH
MF C42 H68 O13
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CHEMCATS, CSCHEM, DDFU, DRUGU, EMBASE, IPA, NAPRALERT, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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200 REFERENCES IN FILE CAPLUS (1962 TO DATE)

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REFERENCE 2: 136:166103

REFERENCE 3: 136:139699

REFERENCE 4: 136:95655

REFERENCE 5: 136:63649

REFERENCE 6: 135:327019

REFERENCE 7: 135:236052

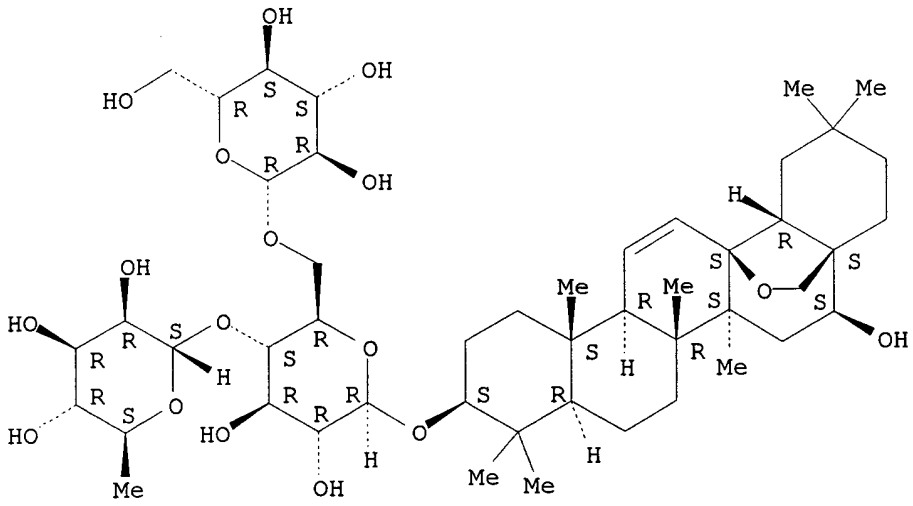
REFERENCE 8: 135:58388

REFERENCE 9: 135:37258

REFERENCE 10: 134:175612

L13 ANSWER 8 OF 9 REGISTRY COPYRIGHT 2002 ACS
RN **20736-08-7** REGISTRY
CN .beta.-D-Glucopyranoside, (3.beta.,16.beta.)-13,28-epoxy-16-hydroxyolean-11-en-3-yl O-6-deoxy-.alpha.-L-mannopyranosyl-(1.fwdarw.4)-O-[.beta.-D-glucopyranosyl-(1.fwdarw.6)]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2H,5H-14a,4a-(Epoxymethano)picene, .beta.-D-glucopyranoside deriv.
CN Oleanane, .beta.-D-glucopyranoside deriv.
CN Saikosaponin C (8CI)
FS STEREOSEARCH
MF C48 H78 O17
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CHEMCATS, CSCHEM, DDFU, DRUGU, EMBASE, IPA, NAPRALERT, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

Absolute stereochemistry.



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119 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 136:267996

REFERENCE 2: 136:139699

REFERENCE 3: 136:95655

REFERENCE 4: 136:63649

REFERENCE 5: 135:58388

REFERENCE 6: 134:2648

REFERENCE 7: 133:293488

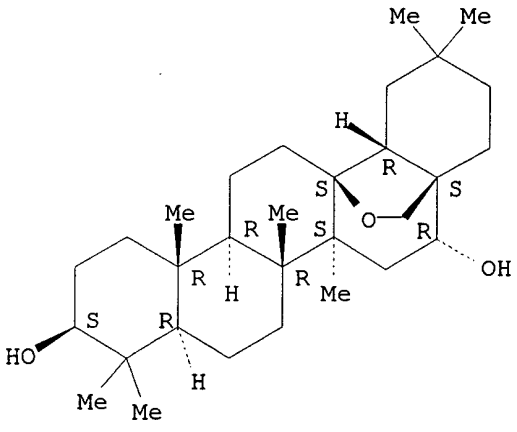
REFERENCE 8: 133:202563

REFERENCE 9: 133:125378

REFERENCE 10: 132:352791

L13 ANSWER 9 OF 9 REGISTRY COPYRIGHT 2002 ACS
RN **2611-08-7** REGISTRY
CN Oleanane-3,16-diol, 13,28-epoxy-, (3.beta.,16.alpha.)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2H,5H-14a,4a-(Epoxymethano)picene, oleanane-3,16-diol deriv.
CN Cyclamiretin A, 25-deoxy- (7CI)
CN Oleanane-3.beta.,16.alpha.-diol, 13,28-epoxy- (8CI)
OTHER NAMES:
CN Protoprimulagenin A
FS STEREOSEARCH
DR 41530-97-6
MF C30 H50 O3
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, NAPRALERT, TOXCENTER
(*File contains numerically searchable property data)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

20 REFERENCES IN FILE CA (1962 TO DATE)
20 REFERENCES IN FILE CAPLUS (1962 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:125379

REFERENCE 2: 119:65641

REFERENCE 3: 112:195216

REFERENCE 4: 107:172512

REFERENCE 5: 99:67516

REFERENCE 6: 96:85881

REFERENCE 7: 94:175406

REFERENCE 8: 94:157159

REFERENCE 9: 87:152512

REFERENCE 10: 87:152507

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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 14 Nov 2002 VOL 137 ISS 20
FILE LAST UPDATED: 13 Nov 2002 (20021113/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

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=> d stat que
L5              STR
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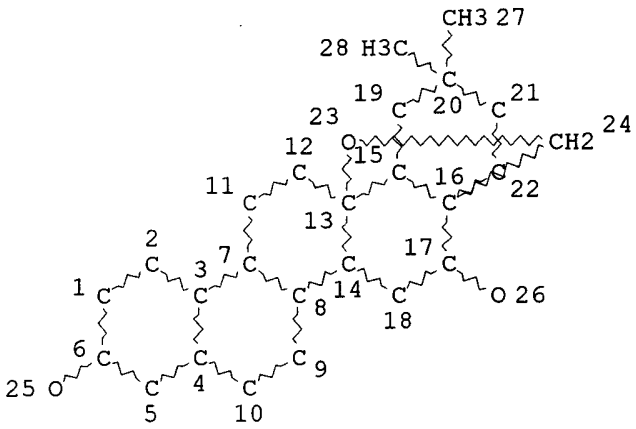

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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

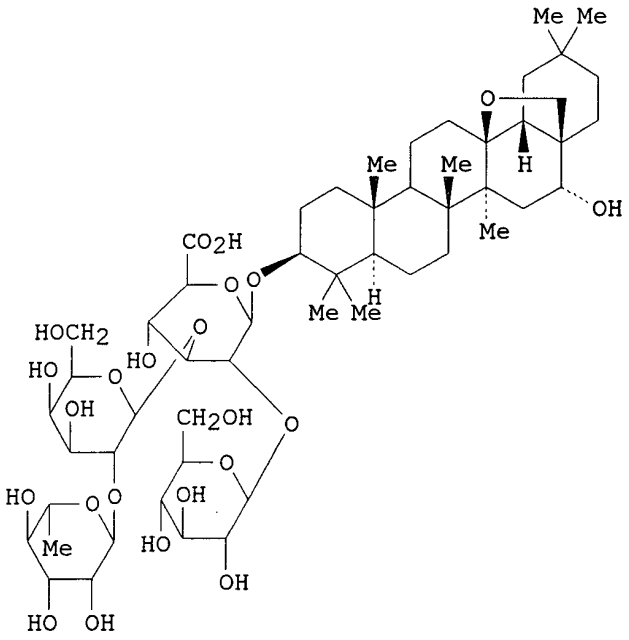
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  28

STEREO ATTRIBUTES: NONE
L7          212 SEA FILE=REGISTRY SSS FUL L5
L8          375 SEA FILE=HCAPLUS L7
L9            7 SEA FILE=HCAPLUS L8 AND (MANGROVE? OR AEGICER? OR BLANCO OR
                CORNICUL?)
L11           5 SEA FILE=HCAPLUS (?MYCO? OR ?FUNG?) AND L8
L12           5 SEA FILE=HCAPLUS L11 NOT L9
L14       19812 SEA FILE=REGISTRY GLUCOSE?
L15         367 SEA FILE=REGISTRY RHAMNOSE?
L17          24 SEA FILE=REGISTRY GLUCOR?
L18        2864 SEA FILE=REGISTRY GLUCURON?
L19      411392 SEA FILE=HCAPLUS L14 OR GLUCOSE?
L20       11389 SEA FILE=HCAPLUS L15 OR RHAMNOSE?
L21       47508 SEA FILE=HCAPLUS L17 OR L18 OR GLUCOR? OR GLUCURON?
L22           1 SEA FILE=HCAPLUS L8 AND L19 AND L20 AND L21
L23           1 SEA FILE=HCAPLUS L22 NOT (L9 OR L12)


=> d ibib abs hitrn l23

L23  ANSWER 1 OF 1  HCAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         1983:467516  HCAPLUS
DOCUMENT NUMBER:          99:67516
TITLE:                    Saponins from the roots of P. elatior (L.) Schreber.
                          Constitution of a minor saponin and revision of the
                          sugar chain of the main saponin
AUTHOR(S):                Tschesche, Rudolf; Wagner, Rosemarie; Widera, Wolfgang
```

CORPORATE SOURCE: Inst. Org. Chem. Biochem., Univ. Bonn, Bonn, D-5300/1, Fed. Rep. Ger.
SOURCE: Liebigs Ann. Chem. (1983), (6), 993-1000
CODEN: LACHDL; ISSN: 0170-2041
DOCUMENT TYPE: Journal
LANGUAGE: German
GI



I

AB From the roots and rhizomes of Primula elatior the main saponin (PS4) and 4 minor saponins were isolated. For one (PS3) of the minor saponins, the genuine aglycon of which was identified as protoprimulagenin A , the structure of the sugar chain consisting of D-**glucose**, D-**glucuronic** acid, D-galactose, and L-**rhamnose** was established. The structure of PS4, previously reported by R. Tschesche and W. Wiemann (1977), has been revised as 3-O-{O-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-.alpha.-L-rhamnopyranosyl-(1.fwdarw.2)-.beta.-D-galactopyranosyl-(1.fwdarw.3)]-.beta.-D-glucopyranosyl}protoprimulagenin (I).

IT **2611-08-7**
RL: BIOL (Biological study)
(aglycone, of Primula elatior saponins)

IT **65312-86-9 86667-22-3**
RL: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)
(of Primula elatior, isolation and structure of)

```
=> select hit rn l23
ENTER ANSWER NUMBER OR RANGE (1-):1
E1 THROUGH E3 ASSIGNED

=> fil reg
FILE 'REGISTRY' ENTERED AT 15:49:26 ON 14 NOV 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2002 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   13 NOV 2002  HIGHEST RN 473527-47-8
DICTIONARY FILE UPDATES:  13 NOV 2002  HIGHEST RN 473527-47-8

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> s e1-e3
             1 2611-08-7/BI
               (2611-08-7/RN)
             1 65312-86-9/BI
               (65312-86-9/RN)
             1 86667-22-3/BI
               (86667-22-3/RN)
L24          3 (2611-08-7/BI OR 65312-86-9/BI OR 86667-22-3/BI)

=> d ide can l24 tot

L24  ANSWER 1 OF 3  REGISTRY  COPYRIGHT 2002 ACS
RN   86667-22-3  REGISTRY
CN   .beta.-D-Glucopyranosiduronic acid, (3.beta.,16.alpha.)-13,28-epoxy-16-
     hydroxyoleanan-3-yl O-6-deoxy-.alpha.-L-mannopyranosyl-(1.fwdarw.2)-O-
     .beta.-D-galactopyranosyl-(1.fwdarw.2)-O-[.beta.-D-glucopyranosyl-
     (1.fwdarw.3)]- (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   2H,5H-14a,4a-(Epoxymethano)picene, .beta.-D-glucopyranosiduronic acid
     deriv.
CN   Oleanane, .beta.-D-glucopyranosiduronic acid deriv.
MF   C54 H88 O23
LC   STN Files:   BEILSTEIN*, CA, CAPLUS
         (*File contains numerically searchable property data)
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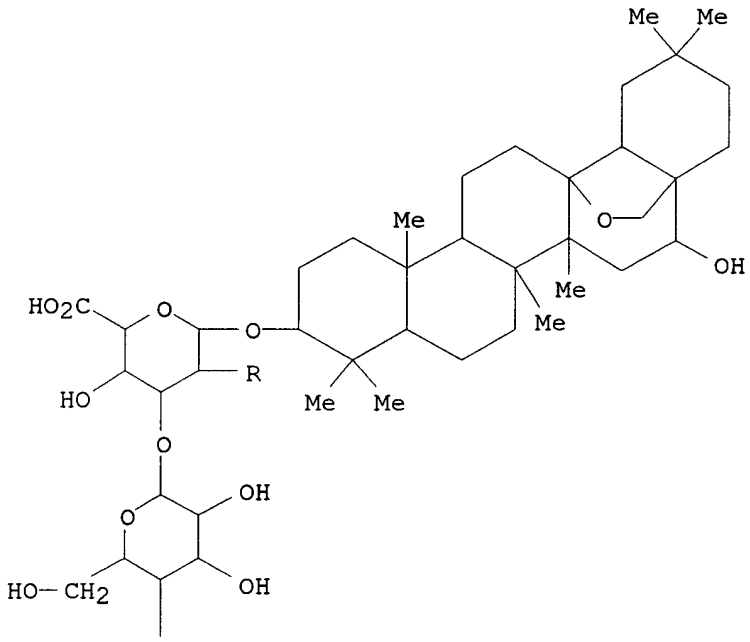
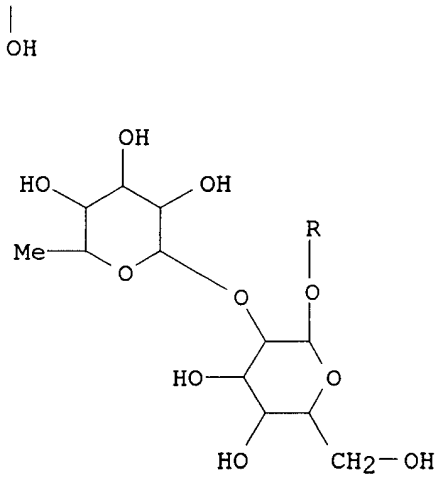
PAGE 1-A



PAGE 2-A



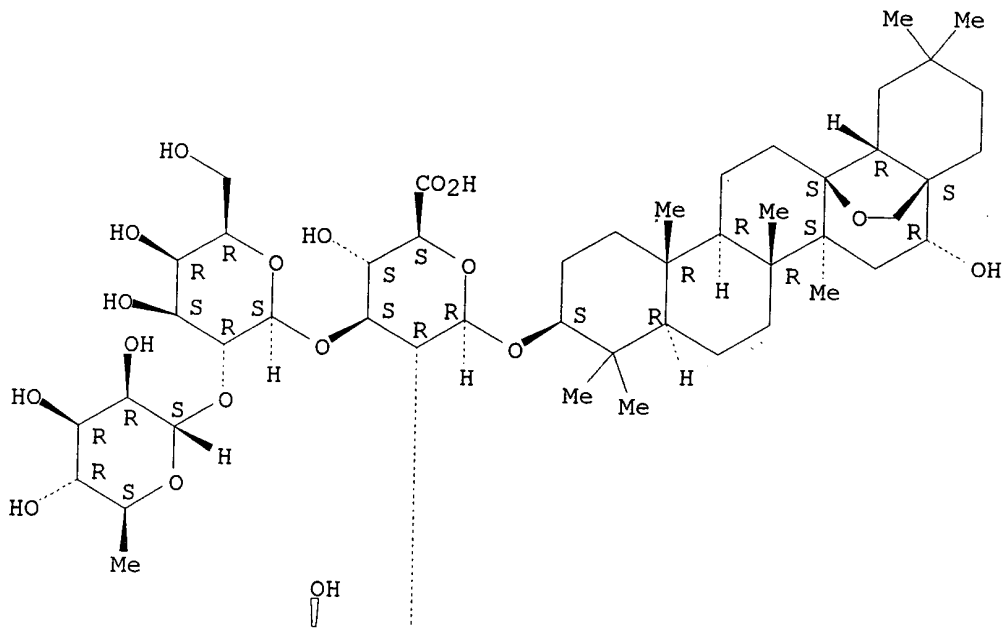
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 99:67516

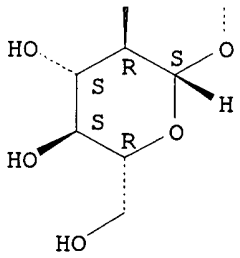
L24 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2002 ACS
RN **65312-86-9** REGISTRY
CN .beta.-D-Glucopyranosiduronic acid, (3.beta.,16.alpha.)-13,28-epoxy-16-hydroxyoleanan-3-yl O-6-deoxy-.alpha.-L-mannopyranosyl-(1.fwdarw.2)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-[.beta.-D-glucopyranosyl-(1.fwdarw.2)]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2H,5H-14a,4a-(Epoxymethano)picene, .beta.-D-glucopyranosiduronic acid deriv.
CN Oleanane, .beta.-D-glucopyranosiduronic acid deriv.
OTHER NAMES:
CN Primulasaponin
CN Saponin PS 4 from Primula elatior
FS STEREOSEARCH
MF C54 H88 O23
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



5 REFERENCES IN FILE CA (1962 TO DATE)
5 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 129:52122

REFERENCE 2: 117:230129

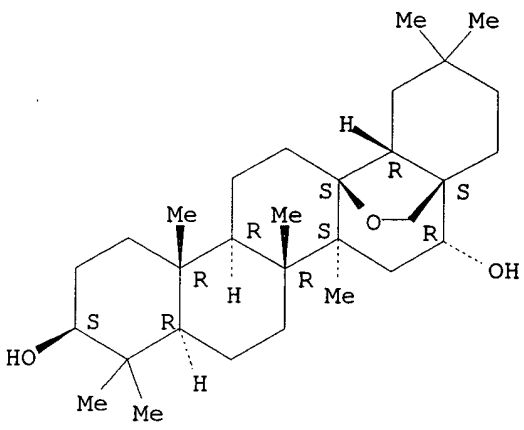
REFERENCE 3: 99:67516

REFERENCE 4: 87:152512

REFERENCE 5: 64:14490

L24 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2002 ACS
RN **2611-08-7** REGISTRY
CN Oleanane-3,16-diol, 13,28-epoxy-, (3.beta.,16.alpha.)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2H,5H-14a,4a-(Epoxymethano)picene, oleanane-3,16-diol deriv.
CN Cyclamiretin A, 25-deoxy- (7CI)
CN Oleanane-3.beta.,16.alpha.-diol, 13,28-epoxy- (8CI)
OTHER NAMES:
CN Protoprimulagenin A
FS STEREOSEARCH
DR 41530-97-6
MF C30 H50 O3
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, NAPRALERT, TOXCENTER
(*File contains numerically searchable property data)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

20 REFERENCES IN FILE CA (1962 TO DATE)
20 REFERENCES IN FILE CAPLUS (1962 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 133:125379

REFERENCE 2: 119:65641

REFERENCE 3: 112:195216

REFERENCE 4: 107:172512

REFERENCE 5: 99:67516

REFERENCE 6: 96:85881

REFERENCE 7: 94:175406

REFERENCE 8: 94:157159

REFERENCE 9: 87:152512

REFERENCE 10: 87:152507

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FILE 'HCAPLUS' ENTERED AT 17:26:04 ON 14 NOV 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 14 Nov 2002 VOL 137 ISS 20
FILE LAST UPDATED: 13 Nov 2002 (20021113/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> d stat que
L1 6 SEA FILE=HCAPLUS ((WAHIDULLAH S?) OR (WAHIDULLAH,S?) OR (WAHIDULLAH, S?))/AU,IN
L2 47 SEA FILE=HCAPLUS ((BHOSALE S?) OR (BHOSALE,S?) OR (BHOSALE, S?))/AU,IN
L3 5 SEA FILE=HCAPLUS ("D SOUZA MARIA"/AU OR "D SOUZA MARIA LISETTE DE"/AU OR "D SOUZA MARIA LISETTE DE"/IN)
L4 57 SEA FILE=HCAPLUS L1 OR L2 OR L3

=> d ibib abs hitrn l4 1-57

L4 ANSWER 1 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:806240 HCAPLUS
TITLE: Rac2, a hematopoiesis-specific Rho GTPase, specifically regulates mast cell protease gene expression in bone marrow-derived mast cells
AUTHOR(S): Gu, Yi; Byrne, Michael C.; Paranavitana, Nivanka C.; Aronow, Bruce; Siefring, Jamie E.; **D'Souza, Maria**; Horton, Heidi F.; Quilliam, Lawrence A.; Williams, David A.
CORPORATE SOURCE: Division of Experimental Hematology, Cincinnati Children's Hospital Medical Center, Cincinnati, OH, 45229, USA
SOURCE: Molecular and Cellular Biology (2002), 22(21), 7645-7657

CODEN: MCEBD4; ISSN: 0270-7306
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Rho family GTPases activate intracellular kinase cascades to modulate transcription of multiple genes. Previous studies have examd. the roles of the ubiquitously expressed Rho GTPase, Rac1, in regulation of gene expression in cell lines and implicated NF-.kappa.B, serum response factor, and kinase signaling pathways in this regulation. To understand the role of the closely related but hematopoiesis-specific Rho GTPase, Rac2, in regulation of gene transcription, we compared the gene expression profiles between wild-type and Rac2-/- bone marrow-derived mast cells. Our data demonstrate remarkable specificity in the regulation of gene expression by Rac2 vs. Rac1. Microarray anal. demonstrated that expression of 38 known genes was significantly altered in Rac2-/- mast cells after cytokine stimulation compared with those in wild-type cells. Of these, the expression of the mouse mast cell protease 7 (MMCP-7) gene in wild-type cells was highly induced at the transcriptional level after stimulation with stem cell factor (SCF). In spite of compensatorily increased expression of Rac1 in Rac2-deficient cells, SCF-induced MMCP-7 transcription did not occur. Surprisingly, the loss of MMCP-7 induction was not due to decreased activation of NF-.kappa.B, a transcription factor postulated to lie downstream of Rac1 and known to play a crit. role in hematopoietic cell differentiation and proliferation. However, the activities of c-Jun N-terminal kinases (JNKs) were markedly decreased in Rac2-/- mast cells. Our results suggest that cytokine-stimulated activation of MMCP-7 gene transcription is selectively regulated by a Rac2-dependent JNK signaling pathway in primary mast cells and imply a remarkable specificity in the regulation of transcriptional activity by these two highly related Rho GTPases.
REFERENCE COUNT: 76 THERE ARE 76 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:769134 HCAPLUS
TITLE: A facile and selective deprotection of tert-butyldimethylsilyl ethers of phenols using triethylamine N-oxide
AUTHOR(S): Zubaidha, P. K.; **Bhosale, S. V.**; Hashmi, A. M.
CORPORATE SOURCE: School of Chemical Sciences, SRTM University, Nanded, 431606, India
SOURCE: Tetrahedron Letters (2002), 43(40), 7277-7279
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Aryl TBS ethers can be cleaved selectively in high yields in the presence of alkyl TBS ethers by employing triethylamine N-oxide.
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

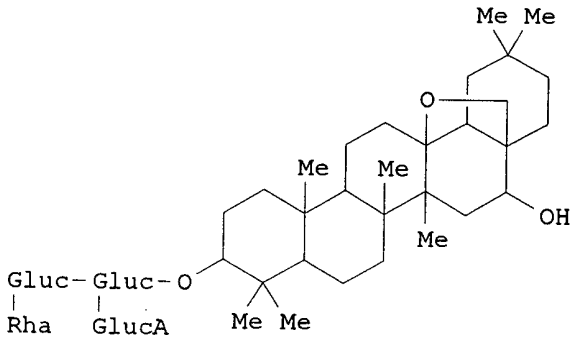
L4 ANSWER 3 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:754408 HCAPLUS

DOCUMENT NUMBER: 137:260187
TITLE: A composition containing novel compound corniculatonin having antifungal properties and a process for preparing the same
INVENTOR(S): **Wahidullah, Solimabi**; Bhosak, Siddharth Hariba; D'Souza, Maria Lisette De
PATENT ASSIGNEE(S): Council of Scientific and Industrial Research, India
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002077008	A1	20021003	WO 2001-IN51	20010327

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

GI



I

AB The invention relates to novel oleanane triterpenoid oligoglycoside (corniculatonin) of formula I. The invention also relates to a process for the isolation of the novel compd. from a mangrove plant Aegiceras corniculatum (Blanco) belonging to the family Myrsinaceae by solvent extn. followed by solvent fractionation and liq. chromatog. The invention also discloses the antifungal properties of the compd. I, and its use food

preservative, or as a treatment of fungi infections. Thus 10 kg of Aegiceras corniculatum was extd. with methanol twice for 1 wk each, the exts. were combined concd. and fractionated using solvents of increasing polarity. Compd. I was then isolated from the aq. phase by repeated rounds of XAD-2 ion exchange chromatog. followed by Sepahdex LH20 chromatog. Compd. I was further purified by passing over silica gel.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:489349 HCAPLUS
DOCUMENT NUMBER: 137:196939
TITLE: Antifouling potential of some marine organisms from India against species of Bacillus and Pseudomonas
AUTHOR(S): **Bhosale, S. H.**; Nagle, V. L.; Jagtap, T. G.
CORPORATE SOURCE: National Institute of Oceanography, Goa, 403004, India
SOURCE: Marine Biotechnology (2002), 4(2), 111-118
CODEN: MABIFW; ISSN: 1436-2228
PUBLISHER: Springer-Verlag New York Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Crude methanolic exts. of 37 marine organisms (16 species of flora, 21 species of fauna) were screened for antibacterial properties against 5 strains of bacteria isolated from marine environments. Of these, 10 plant and 9 animal exts. exhibited antibacterial activity against at least one bacterial strain. The exts. of 6 species were active against all the strains: i.e., Stoechospermum marginatum (brown algae), Cymodocea rotundata (seagrass), Petrosia sp. and Psammaplysilla purpurea (sponges), Sinularia compressa (soft coral), and Cassiopeia sp. (jellyfish). Among the plants, Padina tetrastromatica (brown algae) ext. exhibited significant activity (9-11-mm inhibition zone at 500 .mu.g per 6-mm disk) against Bacillus pumilus and Pseudomonas vesicularis, while the exts. of Petrosia, Psammaplysilla, and Cassiopeia were strongly active (11-13-mm inhibition zone at 500 .mu.g per 6-mm disk) against B. circulans and P. putida. It was further confirmed that the attachment of bacterial strains on glass slides was inhibited remarkably with increasing concns. of bioexts. of Petrosia sp. and Psammaplysilla purpurea. The present findings could form the basis for exploring the antibacterial potential of bioactive mols. from some of the marine organisms that exhibited moderate to strong antibacterial properties.

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:304676 HCAPLUS
DOCUMENT NUMBER: 137:29713
TITLE: Purification and characterization of lipase from the anaerobic lipolytic bacterium Selenomonas lipolytica
AUTHOR(S): Behere, Aditi S.; Dighe, Abhijit S.; **Bhosale, Suresh B.**; Ranade, Dilip R.
CORPORATE SOURCE: Microbial Sciences Division, Agharkar Research Institute, Pune, 411004, India
SOURCE: Journal of Microbiology and Biotechnology (2002), 12(1), 142-144

CODEN: JOMBES; ISSN: 1017-7825
PUBLISHER: Korean Society for Microbiology and Biotechnology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Two different extracellular lipases were produced by S. lipolytica. A major lipase, lipase I, was isolated, which showed optimum activity at pH 6.0 and at 45.degree.. It showed a mol. wt. of 240 kDa and was a tetramer of a subunit having a mol. wt. of 60 kDa, which is different from the known bacterial lipases.
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:835163 HCAPLUS
DOCUMENT NUMBER: 136:353539
TITLE: Hermansky-Pudlak syndrome type 3 in Ashkenazi Jews and other non-Puerto Rican patients with hypopigmentation and platelet storage-pool deficiency
AUTHOR(S): Huizing, Marjan; Anikster, Yair; Fitzpatrick, Diana L.; Jeong, Anna B.; **D'Souza, Maria**; Rausche, Melanie; Toro, Jorge R.; Kaiser-Kupfer, Muriel I.; White, James G.; Gahl, William A.
CORPORATE SOURCE: Section on Human Biochemical Genetics, Heritable Disorders Branch, National Institute of Child Health and Human Development, National Institutes of Health, Bethesda, MD, 20892-1830, USA
SOURCE: American Journal of Human Genetics (2001), 69(5), 1022-1032
CODEN: AJHGAG; ISSN: 0002-9297
PUBLISHER: University of Chicago Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Hermansky-Pudlak syndrome (HPS), consisting of oculocutaneous albinism and a bleeding diathesis due to the absence of platelet dense granules, displays extensive locus heterogeneity. HPS1 mutations cause HPS-1 disease, and ADTB3A mutations cause HPS-2 disease, which is known to involve abnormal intracellular vesicle formation. A third HPS-causing gene, HPS3, was recently identified on the basis of homozygosity mapping of a genetic isolate of HPS in central Puerto Rico. We now describe the clin. and mol. characteristics of 8 patients with HPS-3 who are of non-Puerto Rican heritage. 5 Are Ashkenazi Jews; 3 of these are homozygous for a 1303+1G.fwdarw.A splice-site mutation that causes skipping of exon 5, deleting an RsaI restriction site and decreasing the amts. of mRNA found on northern blotting. The other 2 are heterozygous for the 1303+1G.fwdarw.A mutation and for either an 1831+2T.fwdarw.G or a 2621-2A.fwdarw.G splicing mutation. Of 235 anonymous Ashkenazi Jewish DNA samples, one was heterozygous for the 1303+1G.fwdarw.A mutation. 1 7-Yr-old boy of German/Swiss extn. was compd. heterozygous for a 2729+1G.fwdarw.C mutation, causing skipping of exon 14, and resulting in a C1329T missense (R396W), with decreased mRNA prodn. A 15-yr-old Irish/English boy was heterozygous for an 89-bp insertion between exons 16 and 17 resulting from abnormal splicing; his fibroblast HPS3 mRNA is normal in amt. but is increased in size. A 12-yr-old girl of Puerto Rican and Italian background has the 3,904-bp founder deletion from central

Puerto Rico on one allele. All 8 patients have mild symptoms of HPS; 2 Jewish patients had received the diagnosis of ocular, rather than oculocutaneous, albinism. These findings expand the mol. diagnosis of HPS, provide a screening method for a mutation common among Jews, and suggest that other patients with mild hypopigmentation and decreased vision should be examd. for HPS.

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:392732 HCAPLUS
DOCUMENT NUMBER: 135:151410
TITLE: Biochemical and biological characterization of a human Rac2 GTPase mutant associated with phagocytic immunodeficiency
AUTHOR(S): Gu, Yi; Jia, Baoqing; Yang, Feng-Chun; **D'Souza, Maria**; Harris, Chad E.; Derrow, Caroline W.; Zheng, Yi; Williams, David A.
CORPORATE SOURCE: Howard Hughes Medical Institute and the Herman B Wells Center for Pediatric Research, Department of Pediatrics, Indiana University School of Medicine, Indianapolis, IN, 46202, USA
SOURCE: Journal of Biological Chemistry (2001), 276(19), 15929-15938
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The Rho GTPase, Rac2, is expressed only in hematopoietic cell lineages, suggesting a specific cellular function in these cells. Genetic targeting studies in mice showed that Rac2 is an essential regulator of neutrophil chemotaxis, L-selectin capture and rolling, and superoxide prodn. Recently, a dominant neg. mutation of Rac2, D57N, has been reported to be assocd. with a human phagocytic immunodeficiency. To understand further the cellular phenotypes assocd. with this D57N Rac2 mutant we examd. its biochem. characteristics and functional effects when expressed in primary murine bone marrow cells. When compared with wild type (WT) Rac2, D57N Rac2 displayed .apprx.10% GTP binding ability resulting from a markedly enhanced rate of GTP dissocn. and did not respond to the guanine nucleotide exchange factors. These results suggest that D57N Rac2 may act in a dominant neg. fashion in cells by sequestering endogenous guanine nucleotide exchange factors. When expressed in hematopoietic cells, D57N Rac2 reduced endogenous activities of not only Rac2, but also Rac1 and decreased cell expansion in vitro in the presence of growth factors due to increased cell apoptosis. Unexpectedly, D57N expression had no effect on proliferation. In contrast, expansion of cells transduced with WT Rac2 and a dominant active mutant, Q61L, was assocd. with significantly increased proliferation. Transplantation of transduced bone marrow cells into lethally irradiated recipients showed that the percentage of D57N-contg. peripheral blood cells decreased markedly from 40% at 1 mo to <5% by 3 mo postinjection. Neutrophils derived in vitro from the transduced progenitor cells contg. D57N demonstrated markedly impaired migration and O2- responses to formyl-methionyl-leucyl-phenylalanine,

reflecting the same cellular phenotype in these differentiated cells as those described previously in patient cells. These data suggest that the phenotypic abnormalities assocd. with D57N Rac2 may involve not only neutrophil cellular functions, but also abnormal cell survival in other hematopoietic cells and that overexpression of Rac leads to increased proliferation of normal cells in vitro, whereas deficiency of Rac leads to increased apoptosis.

REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:293212 HCAPLUS
DOCUMENT NUMBER: 135:104797
TITLE: Metabolite and enzyme profiles of glycogen metabolism in Methanococcoides methylutens
AUTHOR(S): Maitra, P. K.; **Bhosale, S. B.**; Kshirsagar, D. C.; Yeole, T. Y.; Shanbhag, A. N.
CORPORATE SOURCE: Agarkar Road, Agharkar Research Institute, Pune, 411 004, India
SOURCE: FEMS Microbiology Letters (2001), 198(1), 23-29
CODEN: FMLED7; ISSN: 0378-1097
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB When a buffered anaerobic cell suspension of Methanococcoides methylutens was maintained under methanol-limited conditions, intracellular glycogen and hexose phosphates were consumed rapidly and a very small amt. of methane formed at 4 h of a starvation period. When methanol was supplemented after a total of 20 h of starvation, a reverse pattern was obsd.: the glycogen level and the hexose phosphate pool increased, and formation of methane took place after a lag period of 90 min. A considerable amt. of methane was formed in 120 min after its detection with a rate of 0.18 .mu.mol mg-1 protein min-1. When methane formation decreased after 270 min of incubation and finally came to a halt, probably due to complete assimilation of supplemented methanol, the levels of glycogen and hexose monophosphates decreased once again. However fructose 1,6-diphosphate levels showed a continuous increase even after exhaustion of methane formation. In contrast to the hexose phosphate pool, levels of other metabolites showed a small increase after addn. of methanol. The enzyme profile of glycogen metab. showed relatively high levels of triose phosphate isomerase. Glyceraldehyde 3-phosphate dehydrogenase reacted with NADPH with a three-fold higher activity as compared to that with NADH.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:702586 HCAPLUS
DOCUMENT NUMBER: 134:273
TITLE: Direct reversal of DNA damage by mutant methyltransferase protein protects mice against dose-intensified chemotherapy and leads to in vivo selection of hematopoietic stem cells
AUTHOR(S): Ragg, Susanne; Xu-Welliver, Meng; Bailey, Jeff;

D'Souza, Maria; Cooper, Ryan; Chandra, Saurabh; Seshadri, Roopa; Pegg, Anthony E.; Williams, David A.
CORPORATE SOURCE: Howard Hughes Medical Institute, Section of Pediatric Hematology/Oncology, Department of Pediatrics, Herman No. Wells Center for Pediatric Research, Indiana University School of Medicine, Indianapolis, IN, 46202, USA
SOURCE: Cancer Research (2000), 60(18), 5187-5195
CODEN: CNREA8; ISSN: 0008-5472
PUBLISHER: American Association for Cancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Direct reversal of O6 adducts caused by chemotherapy agents is accomplished in mammalian cells by the protein O6-methylguanine DNA methyltransferase (MGMT). Some tumors overexpress MGMT and are resistant to alkylator therapy. One future approach to treatment of these tumors may rely on concurrent pharmacol. depletion of tumor MGMT with O6-benzylguanine (6-BG) and protection of sensitive tissues, such as hematopoietic stem and progenitor cells, using genetic modification with 6-BG-resistant MGMT mutants. We have used retroviral-mediated gene transfer to transduce murine hematopoietic bone marrow cells with MGMT point mutants showing resistance to 6-BG depletion in vitro. These mutants include proline to alanine and proline to lysine substitutions at the 140 position (P140A and P140K, resp.), which show 40- and 1000-fold resistance to 6-BG compared with wild-type (WT) MGMT. Lethally irradiated mice were reconstituted with murine stem cells transduced with murine stem cell virus retrovirus expressing each mutant, WT MGMT, or mock-infected cells and then treated with a combination of 30 mg/kg 6-BG and 10 mg/kg 1,3-bis(2-chloroethyl)-1-nitrosourea (BCNU) or with 40 mg/kg BCNU alone. Compared with mice treated with BCNU alone, significant myeloid toxicity and death occurred in mice reconstituted with mock-infected or WT MGMT (<0.1 probability of survival) or the P140A mutant (0.13 probability of survival) MGMT cDNAs. In contrast, after an initial period of mild cytopenia, mice reconstituted with the P140K mutant (0.83 probability of survival) recovered nearly normal blood counts, even during continued treatment. Comparison of peripheral blood neutrophils after completion of 5 weekly treatments in these animals showed a direct correlation between the treatment and in vivo selection for progeny of transduced cells (pretreatment, .apprx.8-12% transduced cells; no treatment, .apprx.6% transduced cells; BCNU only, 51% transduced cells; 6-BG/BCNU, 93% transduced cells). To det. whether this selection occurred at the stem cell level, bone marrow from each treatment group was infused into secondary recipients. Whereas animals that received bone marrow from untreated animals reconstituted with 2% transduced cells, animals receiving marrow from 6-BG/BCNU-treated animals reconstituted with 94% transduced cells, demonstrating nearly complete selection for stem cells in the primary animals. Mice reconstituted with marrow from animals treated with BCNU only demonstrated 23% transduced cells, consistent with partial selection of stem cells in the primary mice. The levels of transduced cells also correlated with survival during a second round of intensive combination chemotherapy (probability of survival: 6-BG/BCNU, 1.0; BCNU alone, >0.70; no treatment, <0.1). These data demonstrate that mutant MGMT expressed in the bone marrow can protect mice from time- and

dose-intensive chemotherapy and that the combination of 6-BG and BCNU leads to uniform selection of transduced stem cells in vivo in mice.
REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:476219 HCAPLUS
DOCUMENT NUMBER: 131:331887
TITLE: Pharmacological studies of isomeric [sic] juglones on the isolated frog heart
AUTHOR(S): **Bhosale, S. H.**; Bodhankar, S. L.; Kulkarni, M. B.; Kulkarni, B. A.
CORPORATE SOURCE: Bharati Vidyapeeth's, Poona College of Pharmacy, Pune, 411 038, India
SOURCE: Indian Journal of Pharmacology (1999), 31(3), 222-224
CODEN: INJPD2; ISSN: 0253-7613
PUBLISHER: Indian Pharmacological Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effects of juglone and 3 analogs: plumbagin, lawsone and phthiocol, on the isolated frog heart were investigated. Their interaction with the calcium channel blockers verapamil, nifedipine and diltiazem was studied to elucidate the mechanism of action. Juglone (10-100 .mu.g), lawsone (10 .mu.g-1 mg), plumbagin (1-100 .mu.g) and phthiocol (1-80 .mu.g) produced dose-dependent increases in contractile rate and force. The pos. inotropic actions of juglone (40 .mu.g), lawsone (80 .mu.g), plumbagin (8 .mu.g) and phthiocol (80 .mu.g) were blocked by verapamil (1 .mu.g), nifedipine (5 .mu.g) and diltiazem (10 .mu.g). Thus, the juglones had pos. inotropic and chronotropic actions on the frog heart. Their mechanism of action apparently involves calcium channels.
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:810243 HCAPLUS
DOCUMENT NUMBER: 130:170869
TITLE: Structural characteristics of marine sedimentary humic acids by CP/MAS 13C NMR spectroscopy
AUTHOR(S): Sardessai, Sugandha; **Wahidullah, Solimabi**
CORPORATE SOURCE: National Institute of Oceanography, Goa, 403004, India
SOURCE: Oceanologica Acta (1998), 21(4), 543-550
CODEN: OCACD9; ISSN: 0399-1784
PUBLISHER: Editions Scientifiques et Medicales Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Humic acids from sediments of different depositional environments have been studied by solid-state 13C NMR and the results compared with the traditional wet chem. anal. Results obtained are well in agreement with the previous literature reports that the carboxyl content measured by NMR correlated better with the total acidity, as well as with the carboxyl content obtained by wet chem. anal. after correction for amino acid carboxyl is made (following hydrolysis of peptide bonds). There is a large discrepancy between the NMR and wet chem. measurements of phenolic compds. NMR spectra was also indicative of branched paraffinic structures

in the humic acids from the Arabian Sea; the humic acids of sediments from estuarine and coastal areas of the Bay of Bengal being dominated by carbohydrates and arom. structures and to a lesser extent by paraffinic structures. These differences are attributed to their different biogeochem. origin.

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 12 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:704800 HCAPLUS
DOCUMENT NUMBER: 130:3095
TITLE: Effect of coordinated addition of specific amino acids on the synthesis of recombinant glucose isomerase
AUTHOR(S): Paul, A.; **Bhosale, S. H.**; Maity, T. K.; Deshpande, V. V.
CORPORATE SOURCE: Department of Chemical Engineering, Indian Institute of Technology, Kharagpur, India
SOURCE: Enzyme and Microbial Technology (1998), 23(7/8), 506-510
CODEN: EMTED2; ISSN: 0141-0229
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The amplified expression of a recombinant protein is known to lead to an intracellular depletion of specific amino acid pools which in turn may affect the prodn. of the desired protein. In order to counteract and overcome such a situation during the fermn. of the recombinant Escherichia coli (PMSG27) contg. the glucose isomerase (GI) gene from Streptomyces sp. NCIM 2730, the effect of addn. of different amino acids on the specific activity of GI was studied. The amino acid compn. of GI from Streptomyces sp. NCIM 2730 reveals predominantly aspartic acid, glutamic acid, and glycine; therefore, in the present paper, the effect of coordinated addn. of the assorted combinations of these three amino acids on the synthesis of recombinant GI was studied. The results were analyzed using a 23 factorial design. The following conclusions were derived from the anal. of two-factor interactions of the three amino acids: (i) the interaction between the aspartic and glutamic acid is independent of aspartic acid concn. but is affected by the increasing concns. of glutamic acid, (ii) the effect of aspartic acid concn. is more than that of glycine, and (iii) during the interaction of glutamic acid and glycine, the effect of glutamic acid is more prominent than that of glycine. The three-factor interaction analyses reveal that the effect of the three amino acids is in the order aspartic acid > glutamic acid > glycine.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:348360 HCAPLUS
DOCUMENT NUMBER: 129:93071
TITLE: A heteroaromatic acid from marine sponge Suberites vestigium
AUTHOR(S): Mishra, Prabhu Dutt; **Wahidullah, Solimabi**; Kamat, S. Y.
CORPORATE SOURCE: National Institute of Oceanography, Goa, 403 004,

India
SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1998), 37B(2), 199-200
CODEN: IJSBDB; ISSN: 0376-4699
PUBLISHER: National Institute of Science Communication, CSIR
DOCUMENT TYPE: Journal
LANGUAGE: English
AB 4-Methylpyrazole-3(5)-carboxylic acid has been isolated from the butanol fraction of marine sponge, Suberites vestigium for the first time. The methanol ext. of the sponge exhibits in vitro antihistaminic activity. Pyrazole derivs. as synthetic products are widely used as medicine, however, org. compds. contg. pyrazole nucleus have not been reported from marine flora and fauna. Structure elucidation of the compd. is based on spectral evidences.

L4 ANSWER 14 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:801737 HCAPLUS
DOCUMENT NUMBER: 128:72753
TITLE: Distribution of transition metal ions in Methanosarcina barkeri
AUTHOR(S): Arnikar, H. J.; Pawar, P. V.; **Bhosale, S. B.**
CORPORATE SOURCE: Agharkar Res. Inst., Pune, 411 004, India
SOURCE: NUCAR 95: Proceedings of Nuclear and Radiochemistry Symposium, Kalpakkam, India, Feb. 21-24, 1995 (1995), 290-291. Editor(s): Kulkarni, S. G.; Manohar, S. B.; Sood, D. D. Bhabha Atomic Research Centre: Bombay, India.
CODEN: 65LKAQ
DOCUMENT TYPE: Conference
LANGUAGE: English
AB Cells of Methanosarcina barkeri take up transition metal ions. Tracer technique studies showed that only 59Fe2+ was found incorporated in all hydrogenases. 63Ni2+ and 58Co2+ were detected in both F420 reducing hydrogenases. The radioactivities of 65Zn2+ and 75Se2+ were present in hydrogenase A, while 49Mo2+ and 184W2+ were assocd. with hydrogenase D. This difference in the metal compn. of hydrogenases is possible due to assocn. of hydrogenases with other enzyme systems.

L4 ANSWER 15 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:743398 HCAPLUS
DOCUMENT NUMBER: 128:59554
TITLE: Steroids from marine sponges Suberites vestigium and Chrotella australiensis
AUTHOR(S): Mishra, P. D.; **Wahidullah, Solimabi**; D'souza, L. D.; Kamat, S. Y.
CORPORATE SOURCE: Chemical Oceanography Division, National Institute of Oceanography, Goa, 403 004, India
SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1997), 36B(8), 719-721
CODEN: IJSBDB; ISSN: 0376-4699
PUBLISHER: National Institute of Science Communication, CSIR
DOCUMENT TYPE: Journal

LANGUAGE: English
AB The sponges Suberites vestigium and Chrotella australiensis have been examd. for steroids. Both the sponges contain C27-29 mono and diunsatd. sterols, in addn. sponge C. australiensis contains cholest-4-ene-3-one and 24-Et cholest-4-ene-3-one. Batyl alc. and its higher homolog have also been identified in S. vestigium. This is first report of steroids from these sponges.

L4 ANSWER 16 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:692172 HCAPLUS
DOCUMENT NUMBER: 126:17845
TITLE: Potential of Bacillus licheniformis for the production of 2,3-butanediol
AUTHOR(S): Nilegaonkar, Smita S.; **Bhosale, Suresh B.**; Dandage, Chitra N.; Kapadi, Arvind H.
CORPORATE SOURCE: Agharkar Research Institute, Pune, 411 004, India
SOURCE: Journal of Fermentation and Bioengineering (1996), 82(4), 408-410
CODEN: JFBIEX; ISSN: 0922-338X
PUBLISHER: Society for Fermentation and Bioengineering, Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Bacillus licheniformis produced 2,3-butanediol from various carbohydrates, such as glucose, fructose, cellobiose, sucrose, starch and mannose, with a productivity of 1.33, 1.02, 1.02, 0.97, 0.79 and 0.70 mmol/h, resp. at optimum pH at 37.degree..

L4 ANSWER 17 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:663221 HCAPLUS
DOCUMENT NUMBER: 126:27400
TITLE: Molecular cloning and expression of the glucose/xylose isomerase gene from Streptomyces sp. NCIM 2730 in Escherichia coli
AUTHOR(S): **Bhosale, S. H.**; Ghatge, M. S.; Deshpande, V. V.
CORPORATE SOURCE: Division of Biochemical Sciences, National Chemical Laboratory, Pune, 411 008, India
SOURCE: FEMS Microbiology Letters (1996), 145(1), 95-100
CODEN: FMLED7; ISSN: 0378-1097
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A partial genomic library of Streptomyces sp. NCIM 2730 was constructed in Escherichia coli using pUC8 vector and screened for the presence of the D-glucose/xylose isomerase (GXI) gene using an 18-mer mixed oligonucleotide probe complementary to a highly conserved six-amino acid sequence of GXI from actinomycetes. Eight clones which hybridized with the radiolabeled oligonucleotide probe showed the ability to complement xylose isomerase-defective E. coli mutants. The restriction map of the insert from one (pMSG27) of the eight GXI-pos. clones showing detectable GXI activity was constructed. GXI-deficient strains of E. coli were able to utilize xylose as the sole carbon source for their growth upon transformation with pMSG27. E. coli JM105 (pMSG27) and E. coli JC1553 (pMSG27) were inducible by IPTG suggesting that the expression of the

cloned gene was under the control of the lacZ promoter. Western blot anal. revealed that the cloned gene is expressed as a fusion protein of Mr 110. This is the first report of expression of a catalytically active GXI from Streptomyces in Escherichia coli.

L4 ANSWER 18 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:403068 HCAPLUS
DOCUMENT NUMBER: 125:108367
TITLE: Molecular and industrial aspects of glucose isomerase
AUTHOR(S): **Bhosale, Snehalata H.**; Rao, Mala B.; Deshpande, Vasanti V.
CORPORATE SOURCE: Division of Biochemical Sciences, National Chemical Laboratory, Pune, 411008, India
SOURCE: Microbiological Reviews (1996), 60(2), 280-300
CODEN: MBRED3; ISSN: 0146-0749
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 188 refs. that presents updated information on the biochem. and genetic aspects of glucose isomerase (D-glucose/xylose isomerase, E.C. 5.3.1.5) with a view to identifying important problems faced in its com. application and evolving potential solns.

L4 ANSWER 19 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:464156 HCAPLUS
DOCUMENT NUMBER: 122:234282
TITLE: Thermostability of high-activity alkaline protease from Conidiobolus coronatus (NCL 86.8.20)
AUTHOR(S): **Bhosale, S. H.**; Rao, M. B.; Deshpande, V. V.; Srinivasan, M. C.
CORPORATE SOURCE: Div. Biochemical Sciences, National Chemical Lab., Pune, India
SOURCE: Enzyme and Microbial Technology (1995), 17(2), 136-9
CODEN: EMTED2; ISSN: 0141-0229
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB C. coronatus (NCL 86.8.20) produces high levels of serine protease (I) activity (30 U/mL). The ease of microbe-free enzyme prepn. and its compatibility with most of the com. detergents are the advantageous features of Conidiobolus I. I was stable at 28.degree. for 20 h and at 40.degree. for 1 h, but was completely inactive on incubation at 50.degree. for 1 h. Higher thermostability is an important factor for the suitability of its application in detergents. The effect of wide variety of compds. was studied to enhance the thermal stability of the protease by modification of its microenvironment. Urea (2-4M), SDS (1%), NaCl (200 mM), and .beta.-mercaptoethanol (10 mM) did not improve the stability of I. Ethylene glycol (10%), glycerol (1%), sorbitol (800 mM), and PEG-8000 (200 mM) had a marginal effect in preventing the thermal inactivation of I. Casein (0.5) was also unable to increase the stability of I at 50.degree.. The addn. of Ca2+ (25 mM) or glycine (1M) was effective in increasing the half-life of I 3-fold. I retained 43% of its activity at 50.degree. in the presence of Ca2+ and glycine. I showed compatibility at 50.degree. with com. detergents, such as Revel and Ariel, in presence of

Ca2+.

L4 ANSWER 20 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:448852 HCAPLUS
DOCUMENT NUMBER: 122:259402
TITLE: Purification and characterization of 5-aminolevulinic acid dehydratase from Methanosarcina barkeri
AUTHOR(S): **Bhosale, Suresh**; Kshirsagar, Deepa; Pawar, Prashant; Yeole, Tulsiram; Ranade, Dilip
CORPORATE SOURCE: Agharkar Research Institute, G.G. Agarkar Road, Pune, 411 004, India
SOURCE: FEMS Microbiology Letters (1995), 127(1-2), 151-5
CODEN: FMLED7; ISSN: 0378-1097
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB 5-Aminolevulinic acid dehydratase from the archaebacterium Methanosarcina barkeri resembles the mammalian and yeast enzymes in its activation by Zn2+, whereas its activation by K+ resembles the characteristic of bacterial enzymes. This enzyme is activated with Ni2+, which is a component of F430, a cofactor present mainly in methanogens. The Mr of 280,000 for the native enzyme and 30,000 for the individual subunit suggest that the enzyme is composed of eight apparently identical subunits similar to mammalian and yeast enzymes. The enzyme has two pH optima, at 8.5 and 9.4. Higher levels of 5-aminolevulinic acid dehydratase in acetate-grown cells suggest the possibility that regulation and control of this enzyme could be different on various growth substrates.

L4 ANSWER 21 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:403075 HCAPLUS
DOCUMENT NUMBER: 122:180482
TITLE: Effect of simultaneous low-level exposure of Pb and Cd on .delta.-ALAD and acetylcholinesterase activity in rats
AUTHOR(S): Gupta, Sarita; **Bhosale, Snehlata**; Pandya, Kirtan
CORPORATE SOURCE: Faculty Science, M.S. University Baroda, Baroda, 390 002, India
SOURCE: Indian Journal of Experimental Biology (1994), 32(11), 819-21
CODEN: IJEBA6; ISSN: 0019-5189
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A dose-dependent study was performed to identify the subcrit. level of Pb and Cd. Blood .delta.-ALAD activity was inhibited by 0.1 mg/kg of both Pb and Cd in isolation and combination, the extent of which increased with duration of exposure. Hepatic .delta.-ALAD activity, however, was less affected by Cd and Pb-Cd together than Pb alone. Erythrocyte acetylcholinesterase activity, though decreased in all the groups, was not significant.

L4 ANSWER 22 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:59349 HCAPLUS
DOCUMENT NUMBER: 118:59349

TITLE: A convenient procedure for the preparation of 2-bromo-1-phenylethanol
AUTHOR(S): **Bhosale, S. S.**; Joshi, P. L.; Rao, A. S.
CORPORATE SOURCE: Natl. Chem. Lab., Pune, 411008, India
SOURCE: Organic Preparations and Procedures International (1992), 24(6), 695-6
CODEN: OPPIAK; ISSN: 0030-4948
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 118:59349
AB The title compd. was prepd. by solvolysis of PhCHBrCH2Br with H2O/acetone under reflux for 6 h.

L4 ANSWER 23 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:21012 HCAPLUS
DOCUMENT NUMBER: 118:21012
TITLE: Production of 2,3-butanediol from glucose by Bacillus licheniformis
AUTHOR(S): Nilegaonkar, S.; **Bhosale, S. B.**; Kshirsagar, D. C.; Kapadi, A. H.
CORPORATE SOURCE: Res. Inst., Maharashtra Assoc. Cultiv. Sci., Pune, 411 604, India
SOURCE: World Journal of Microbiology & Biotechnology (1992), 8(4), 378-81
CODEN: WJMBEY; ISSN: 0959-3993
DOCUMENT TYPE: Journal
LANGUAGE: English
AB B. licheniformis produced 2,3-butanediol from glucose with an optimum yield of 47 g/100 g glucose after 72 h of growth on a peptone-beef ext. medium contg. 2% glucose at pH 6.0 and 37.degree.. This yield of 2,3-butanediol was higher than those previously reported for Klebsiella oxytoca (37 g/100 g glucose) and Bacillus polymyxa (24 g/100 g glucose).

L4 ANSWER 24 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:563486 HCAPLUS
DOCUMENT NUMBER: 115:163486
TITLE: Current practices in tungsten extraction and recovery
AUTHOR(S): **Bhosale, S. N.**; Mookherjee, S.; Pardeshi, R. M.
CORPORATE SOURCE: Res. Dev. Div., Sandvik Asia Ltd., Pune, 411012, India
SOURCE: High Temperature Materials and Processes (London, United Kingdom) (1990), 9(2-4), 147-62
CODEN: HTMPEF; ISSN: 0334-6455
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 25 refs. The occurrence, properties, and uses of W, its recovery from scheelite and wolframite concs. (soda leaching, ion exchange, solvent extn., electrolysis, etc.), and the processing of secondary raw materials are discussed.

L4 ANSWER 25 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:163712 HCAPLUS
DOCUMENT NUMBER: 114:163712
TITLE: Preparation of 2-bromo-1-phenylethanol by solvolysis

of styrenedibromide

INVENTOR(S): **Bhosale, Sharmrao Shankarrao**; Natekar, Mandakini Vishvanath; Joshi, Padmakar Laxman; Dixit, Krishna Narayan; Vaidya, Arvind Sadashiv; Rao, Alevoor Somasekat

PATENT ASSIGNEE(S): Council of Scientific and Industrial Research (India), India

SOURCE: Indian, 10 pp.
CODEN: INXXAP

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IN 166181	A	19900324	IN 1986-DE187	19860303

AB The title compd. was prepd. in high yields and purity by heating a mixt. of styrenedibromide, H2O, and a H2O-miscible solvent at reflux over 5-13 h. Thus, styrenedibromide 46, MeCOEt 87, and H2O 434 parts were refluxed for 13 h on a steam bath to give 94% title compd. contg. no detectable amts. of styrenedibromide (GC, TLC).

L4 ANSWER 26 OF 57 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1991:38327 HCAPLUS

DOCUMENT NUMBER: 114:38327

TITLE: Effect of gamma-radiation on Methanosarcina hydrogenase containing transition metal ions

AUTHOR(S): Arnikar, H. J.; **Bhosale, S. B.**; Kshirsagar, D. C.; Kapadi, A. H.; Yeole, T. Y.

CORPORATE SOURCE: MACS Res. Inst., Pune, 411 004, India

SOURCE: Journal of Radioanalytical and Nuclear Chemistry (1990), 142(2), 349-58
CODEN: JRNCDM; ISSN: 0236-5731

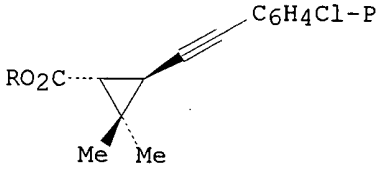
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Tracer studies using 65Zn and 58Co showed that of the 4 forms of Methanosarcina hydrogenases, the A form had .apprx.15% acid labile Zn, whereas hydrogenase D had .apprx.50% Co of the total bound activity in the cell and the other 2 forms B and C had neither Zn nor Co. However, all hydrogenases contained Fe, S, and probably Ni in trace amts. All air-oxidized forms of hydrogenases catalyzed the redn. of Me viologen after a finite incubation period. The redn. was revealed by an increase in the absorption peak at 602 nm. On .gamma.-irradn., all of the 4 hydrogenases changed to more stable oxidized forms, as indicated by an increase in the optical absorption in the visible region at 405 nm. The irradiated samples showed a greater time lag before they could reduce Me viologen, the time lag increasing with the .gamma.-radiation dose. The irradiated enzymes could be reactivated by flushing with H2. The Zn-bearing hydrogenase A alone appeared to be immune to .gamma.-radiation in its ability to reduce Me viologen. This may be due to the Zn having no unpaired electrons to interact with .gamma.-radiation or the primary radiolytic products.

L4 ANSWER 27 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:547985 HCAPLUS
DOCUMENT NUMBER: 113:147985
TITLE: Distribution of transition metal ions in multiple forms of Methanosarcina hydrogenase
AUTHOR(S): **Bhosale, S. B.**; Yeole, T. Y.; Kshirsagar, D. C.
CORPORATE SOURCE: Res. Inst., Maharashtra Assoc. Cultiv. Sci., Pune, 411 004, India
SOURCE: FEMS Microbiology Letters (1990), 70(3), 241-7
CODEN: FMLED7; ISSN: 0378-1097
DOCUMENT TYPE: Journal
LANGUAGE: English
AB There were significant levels of hydrogenase in Methanosarcina strains. The multiple forms of hydrogenase were in cell free exts. of cells grown on methanol. Strains having poor growth on H2:CO2 had 4 forms while strains having normal growth on all substrates contained 2 forms of hydrogenase. These multiple forms differ in their charges as well as in their compn. of transition metal ions. The strain having normal growth showed higher incorporation of 63Ni2+ and 65Zn2+. Both hydrogenases, A and D, of strain P3 had methylviologen and F420-reducing activity and contained Zn2+ and Co2+ resp. Hydrogenases A and D of strains P1 and P4 also had similar characteristics whereas hydrogenases B and C had only methylviologen reducing activity.

L4 ANSWER 28 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:77554 HCAPLUS
DOCUMENT NUMBER: 112:77554
TITLE: Stereospecific synthesis of methyl/t-butyl (+)-1R-trans-2, 2-dimethyl-3-(2-p-chlorophenylethynyl)cyclopropanecarboxylates from (+)-3-carene
AUTHOR(S): **Bhosale, S. S.**; Kulkarni, G. H.
CORPORATE SOURCE: Natl. Chem. Lab., Pune, 411 008, India
SOURCE: Current Science (1989), 58(10), 561-2
CODEN: CUSCAM; ISSN: 0011-3891
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 112:77554
GI



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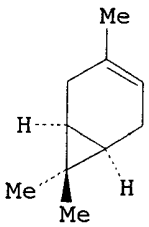

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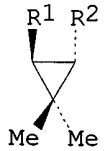

III

AB Title compds. I (R = Me, CMe3) were prepd. from (+)-3-carene (II) via

condensation of III (R1 = CH2COMe, R2 = CH2CHO) with p-ClC6H4MgBr, ozonolysis of III (R1 = CH:CMeC6H4Cl-p, R2 = CH2COC6H4Cl-p), and dehydrohalogenation of III (R1 = CO2Me)R2 = CH:CClC6H4Cl-p) with Me3COK.

L4 ANSWER 29 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:33091 HCAPLUS
DOCUMENT NUMBER: 112:33091
TITLE: Evidence for the existence of multiple forms of hydrogenase in Methanosarcina
AUTHOR(S): **Bhosale, S. B.**; Nilegaonkar, S. S.; Yeole, T. Y.; Kshirsagar, D. C.
CORPORATE SOURCE: Res. Inst., Maharashtra Assoc. Cultiv. Sci., Pune, 411 004, India
SOURCE: Biochemistry International (1989), 19(5), 1095-108
CODEN: BIINDF; ISSN: 0158-5231
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Methanosarcina produced formate from NaHCO3. The presence of hydrogenase and formate dehydrogenase required for formate prodn. was shown. The poor activity of formate dehydrogenase compared with that of hydrogenase suggested that formate dehydrogenase was rate limiting in formate generation. Cell exts. from MeOH-grown Methanosarcina contained 4 different hydrogenases. There were 2 F420 hydrogenases having strong methylviologen reducing activity that were isolated to their electrophoretic homogeneity. The remaining 2, constituting minor protein concns., were methylviologen hydrogenases. One of the F420 hydrogenases had a high mol. mass and subunits with mol. masses of 91 kDa. This F420 hydrogenase was resolved into subunits with mol. masses of 50, 36, 28, and 12 kDa by SDS-PAGE. This hydrogenase could reduce methylviologen, F420, FAD, and ferredoxin. The methylviologen reducing activity of the enzyme was enhanced by a Co-contg. unidentified cofactor, isolated from the cells of Methanosarcina. The involvement of this cofactor was also shown by the presence of 58Co in the enzyme from cell exts. of 58Co-labeled cells of Methanosarcina.

L4 ANSWER 30 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:535996 HCAPLUS
DOCUMENT NUMBER: 111:135996
TITLE: Reduction of methylene blue and related dyes by gamma-irradiated alkali halides
AUTHOR(S): Arnikar, H. J.; Nilegaonkar, S.; **Bhosale, S. B.**; Kapadi, A. H.
CORPORATE SOURCE: Maharashtra Assoc. Cultiv. Sci., Pune, 411 004, India
SOURCE: Journal of Radioanalytical and Nuclear Chemistry (1989), 131(1), 95-103
CODEN: JRNCDM; ISSN: 0236-5731
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A spectrophotometric study was reported of some dyes having the methylene blue (I) structure (I, Janus Green B, and Nile Blue sulfate) used in bacteriol. staining. The redn. was effected by the species liberated during the dissoln. of aq. NaCl, in the same way as by direct low .gamma.-dose. The G values for the modes of redn. were compared and the effects of radical scavengers on the reactions were studied. Results were

similar to chem. (Zn) and biol. (NADH) induced redns.

L4 ANSWER 31 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:407620 HCAPLUS
DOCUMENT NUMBER: 111:7620
TITLE: Oxidation studies using pyridinium chlorochromate on (+)-3-carene derivatives
AUTHOR(S): **Bhosale, S. S.**; Joshi, G. S.; Kulkarni, G. H.
CORPORATE SOURCE: Natl. Chem. Lab., Pune, 411 008, India
SOURCE: Current Science (1988), 57(9), 478-9
CODEN: CUSCAM; ISSN: 0011-3891
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 111:7620
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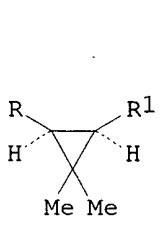

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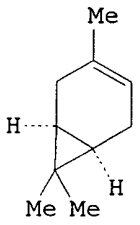

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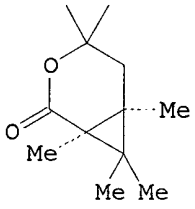

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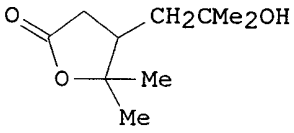

IV

AB Cyclopropane I (R = CH2OH, R1 = CH2CMe2OH), prepd. from (+)-3-carene (II), was oxidized by pyridinium chlorochromate (PCC) to give lactones III and IV. The (+)-enantiomer of III was prepd. via Jones oxidn. of I (R = CH2CMe2OH, R1 = CH2OH). Both III and its enantiomers are important intermediates for pyrethroid insecticides.

L4 ANSWER 32 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:116645 HCAPLUS
DOCUMENT NUMBER: 110:116645
TITLE: Induction of pigment formation in phenolic compounds by gamma-irradiated sodium chloride
AUTHOR(S): Arnikar, H. J.; Nilegaonkar, Smita; **Bhosale, S. B.**; Kapadi, A. H.
CORPORATE SOURCE: Maharashtra Assoc. Cultiv. Sci., Pune, 411 004, India
SOURCE: Journal of Radioanalytical and Nuclear Chemistry

(1988), 125(1), 57-64
CODEN: JRNCDM; ISSN: 0236-5731
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A spectrophotometric study is reported of pigment formation from free radicals produced from aq. o-dianisidine.2HCl and from pyrogallol by the action of .gamma.-irradiated NaCl. The species liberated during dissoln. of the .gamma.-irradiated salt also greatly enhanced the rate of catalytic formation of the pigment due to peroxidase enzyme in the presence of H2O2. The G values for the systems were compared.

L4 ANSWER 33 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:45698 HCAPLUS
DOCUMENT NUMBER: 110:45698
TITLE: Catalytic activity of .gamma.-irradiated transition metal ions in the decomposition of hydrogen peroxide
AUTHOR(S): Arnikar, H. J.; Kapadi, A. H.; Gohad, A. S.; **Bhosale, S. B.**
CORPORATE SOURCE: Chem. Dep., MACS Res. Inst., Pune, 411 004, India
SOURCE: Journal de Chimie Physique et de Physico-Chimie Biologique (1988), 85(6), 707-9
CODEN: JCPBAN; ISSN: 0021-7689
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The catalytic decompn. of H2O2 by Fe2+, Fe3+, Co2+, and Cu2+ adsorbed on neutral .alpha.-Al2O3 was studied at 295-313 K. The .gamma.-irradn. of the catalysts to a dose of 0.12 MGy enhanced markedly the 1st-order decompn. rate. Negligible in the case of Cu2+, the radiation effect increased roughly in the order of the no. of unpaired d electrons in these ions, viz., Cu2+ < (Co2+, Fe2+) < Fe3+. Results are explained on the basis of M. L. Kremer's (1971) mechanism of electron-induced heterogeneous decompn. of H2O2. The radiation effect is attributed to the initial excess of electrons released from traps in the beginning of the reaction.

L4 ANSWER 34 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:24098 HCAPLUS
DOCUMENT NUMBER: 110:24098
TITLE: Synthesis of 2,3-dimethoxy-p-cymene
AUTHOR(S): **Wahidullah, Solimabi**; Paknikar, S. K.
CORPORATE SOURCE: Natl. Inst. Oceanogr., Goa, 403 004, India
SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1987), 26B(9), 880-1
CODEN: IJSBDB; ISSN: 0376-4699
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 110:24098
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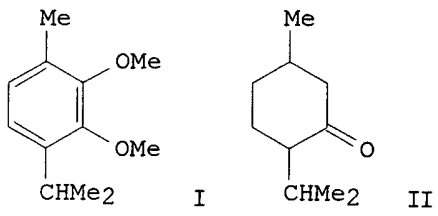

AB A simple and straightforward synthesis of the title compd. I is described starting from menthone II. The synthetic I is not identical with the natural product reported by S. K. Zutshi and M. M. Bokadia (1976).

L4 ANSWER 35 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1988:546344 HCAPLUS
DOCUMENT NUMBER: 109:146344
TITLE: 5(R)-Acetoxyspata-13,17-diene, a novel diterpenoid from the brown alga Stoechospermum marginatum
AUTHOR(S): **Wahidullah, Solimabi**; Kamat, S. Y.; Paknikar, S. K.; Bates, R. B.
CORPORATE SOURCE: Natl. Inst. Oceanogr., Goa, 403 004, India
SOURCE: Planta Medica (1988), 54(3), 270
CODEN: PLMEAA; ISSN: 0032-0943
DOCUMENT TYPE: Journal
LANGUAGE: English
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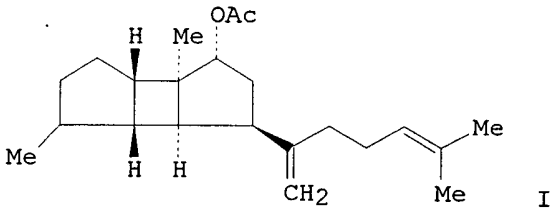


AB Column chromatog. of the CH2Cl2 ext. of S. marginatum yielded stoechospermol acetate (I).

L4 ANSWER 36 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1988:137751 HCAPLUS
DOCUMENT NUMBER: 108:137751
TITLE: Use of poly(ortho esters) for the controlled release of 5-fluorouracil and a LH-RH analog
AUTHOR(S): Heller, J.; Ng, S. Y.; Penhale, D. W.; Fritzinger, B. K.; Sanders, L. M.; Bruns, R. A.; Gaynon, M. G.; **Bhosale, S. S.**
CORPORATE SOURCE: SRI Int., Menlo Park, CA, 94025, USA
SOURCE: Journal of Controlled Release (1987), 6, 217-24
CODEN: JCREEC; ISSN: 0168-3659

DOCUMENT TYPE: Journal
LANGUAGE: English
AB The controlled release of 5-fluorouracil (5FU) and a LH releasing hormone analog (LHRH) from a crosslinked bioerodible poly(ortho ester) was studied. The water-sol. 5FU and LHRH analog are released predominantly by diffusion. However, rate of diffusion is strongly affected by rate of polymer hydrolysis. Because the LHRH analog has 2 reactive OH groups, some are chem. bound to the crosslinked matrix via ortho ester linkages. Anal. of a model polymer matrix indicates that 95% of the LHRH analog is released in its original form and 5% is released as the propionate ester.

L4 ANSWER 37 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1988:36257 HCAPLUS
DOCUMENT NUMBER: 108:36257
TITLE: Isolation of vanillic acid from biodegradation of lignocellulose
AUTHOR(S): Pathak, Deepa; Nilegaonkar, Smita; Kapadi, A. H.; **Bhosale, S. B.**
CORPORATE SOURCE: Dep. Chem., MACS Res. Inst., Poona City, 411 004, India
SOURCE: Biovigyanam (1986), 12(2), 121-4
CODEN: BIOVDZ; ISSN: 0250-507X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Degrdn. of lignocellulose of bamboo grass (collected from paper mills) and leaf peduncle of Cycus cercinalis (gymnosperm) by Aspergillus fumigatus followed by methanogenic fermn. yielding vanillic acid as a major product is reported.

L4 ANSWER 38 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1988:19486 HCAPLUS
DOCUMENT NUMBER: 108:19486
TITLE: Protein and glycogen contents of the accessory reproductive glands of the male and female silk moths Bombyx mori before and after mating
AUTHOR(S): **Bhosale, S. H.**; Kallapur, V. L.; Venkatesh, K.
CORPORATE SOURCE: Dep. Zool., Karnatak Univ., Dharwad, 580 003, India
SOURCE: Entomon (1987), 12(1), 7-11
CODEN: ENTOD5; ISSN: 0377-9335
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The accessory reproductive glands (ARGs) of the mated male silkmoth (B. mori) show the highest concn. of total protein when compared to the testis, vas deferens, seminal vesicle, and ejaculatory duct. The protein level of the ARGs show significant depletion after mating. The gravid female silkmoth shows significant increase of the protein content of the accessory reproductive structures after mating. Apparently the male proteins are transferred to the female during copulation. It was demonstrated with [14C]leucine, that the male transferred proteins are stored in the accessory reproductive structures of the mated female. Glycogen appears to be the chief source of energy during mating in the male, whereas it serves as a source of energy during ovulation in the female moth.

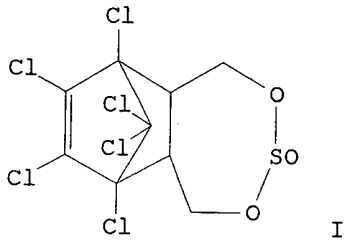
L4 ANSWER 39 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1987:609723 HCAPLUS
DOCUMENT NUMBER: 107:209723
TITLE: Negative capacitance in thin film aluminum-vanadium pentoxide-aluminum devices
AUTHOR(S): **Bhosale, S. A.**; Nadkarni, G. S.; Radhakrishnan, S.
CORPORATE SOURCE: Dep. Phys., Inst. Sci., Bombay, 400032, India
SOURCE: Physica Status Solidi A: Applied Research (1987), 101(2), 639-46
CODEN: PSSABA; ISSN: 0031-8965
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Partial switching and neg. capacitance phenomena are obsd. in thin film Al-V2O5-Al devices. The partially switched device behaves as though the device thickness is decreased. The neg. capacitance obsd. in unswitched and partially-switched devices is explained on the basis of the model for the elec. conduction in vacuum evapd. thin films, presented by the authors in previous publications. Computer simulations of the neg. capacitance characteristics are shown to have excellent correlation with the exptl. characteristics.

L4 ANSWER 40 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1987:419994 HCAPLUS
DOCUMENT NUMBER: 107:19994
TITLE: Redox reactions of coenzymes induced by .gamma.-irradiated sodium chloride
AUTHOR(S): Arnikar, H. J.; Nilegaonkar, Smita; **Bhosale, S. B.**; Kapadi, A. H.
CORPORATE SOURCE: Maharashtra Assoc. Cultiv. Sci., Pune, 411 004, India
SOURCE: Journal of Radioanalytical and Nuclear Chemistry (1987), 108(4), 229-39
CODEN: JRNCDM; ISSN: 0236-5731
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A spectrophotometric study is reported of the oxido-reductant reactions with the major coenzymes as NADH, NADPH, NAD, NADP, and FAD effected by low dose .gamma.-rays and by the energy stored in F and hole centers in .gamma.-irradiated NaCl. The G values for the 2 modes of these redox reactions are compared.

L4 ANSWER 41 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1987:205046 HCAPLUS
DOCUMENT NUMBER: 106:205046
TITLE: Catalytic decomposition of hydrogen peroxide by .gamma.-irradiated salts
AUTHOR(S): Arnikar, H. J.; Kapadi, A. H.; Bhalerao, V. M.; **Bhosale, S. B.**
CORPORATE SOURCE: Dep. Chem., MACS Res. Inst., Pune, 411 004, India
SOURCE: Current Science (1987), 56(4), 185-6
CODEN: CUSCAM; ISSN: 0011-3891
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Catalytic decompn. of H2O2 by .gamma.-irradiated NaCl and Li2SO4 occurred in the homogeneous phase. The rate of H2O2 decompn. was a zero-order reaction with the rate const. varying over the range 0.5 to 7 .times. 10-4 .mu.mol/s. The reaction rate, depended both on the amt. of the catalyst (irradiated salt) and the irradn. dose.

L4 ANSWER 42 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1986:547820 HCAPLUS
DOCUMENT NUMBER: 105:147820
TITLE: Changes in the metabolic fuel reserves of the V instar Bombyx mori following endosulfan treatment
AUTHOR(S): **Bhosale, S. H.**; Kallapur, V. L.
CORPORATE SOURCE: Dep. Stud. Zool., Karnatak Univ., Dharwad, 580 001, India
SOURCE: Entomon (1985), 10(4), 281-3
CODEN: ENTOD5; ISSN: 0377-9335
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB Administration of endosulfan (I) [115-29-7] along with mulberry leaves (12-15 .mu.g I/larva) causes considerable changes in the fuel reserves of the fat body and hemolymph tissues of silkworm (B. mori). Both glycogen [9005-79-2] and acylglycerol contents of the fat body increased significantly with concomitant depletion of trehalose [99-20-7], free fatty acids and acylglycerol levels from the hemolymph at the prostration stage of poisoning. Addnl. acylglycerol and glycogen that appeared in the fat body of the poisoned larva may be due to the rapid uptake by the fat body and that these may be from the hemolymph.

L4 ANSWER 43 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1986:533371 HCAPLUS
DOCUMENT NUMBER: 105:133371
TITLE: Synthesis of methyl 1R-cis/1S-cis-2,2-dimethyl-3-n-propylcyclopropanecarboxylates from (+)-3-carene
AUTHOR(S): **Bhosale, S. S.**; Kulkarni, G. H.; Mitra, R. B.
CORPORATE SOURCE: Natl. Chem. Lab., Pune, 411 008, India
SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1985), 24B(10), 1008-11

CODEN: IJSBDB; ISSN: 0376-4699
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 105:133371
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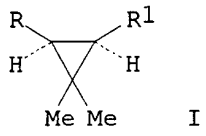

I

AB Me 1R-cis-2,2-dimethyl-3-propylcyclopropanecarboxylate (I, R = Pr, R1 = MeO2C) was prepd. by treating the known intermediate keto alc. I [R = MeCOCH2, R1 = Me2C(OH)CH2] with KOH-H2NNH2.cntdot.H2O in diethylene glycol to gave I [R = Pr, R1 = Me2C(OH)CH2] which was dehydrated with POCl3 in pyridine, oxidized with KMnO4 in Me2CO, and then esterified with CH2N2 to give 21% (R)-I (R= Pr, R1 = MeO2C). Similarly, 18% (S)-I (R = MeO2C, R1 = Pr) was prepd. starting from I [R = Me2C(OH)CH2, R1 = MeCOCH2] or I [R = Me2C(OH)CH2, R1 = MeCHCOH)CH2], both of which can be obtained from (+)-3-carene.

L4 ANSWER 44 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1986:497700 HCAPLUS
DOCUMENT NUMBER: 105:97700
TITLE: A new approach to the synthesis of optically active (+)-1R-trans-pyrethroids
AUTHOR(S): **Bhosale, S. S.**; Kulkarni, G. H.; Mitra, R. B.
CORPORATE SOURCE: Natl. Chem. Lab., Poona, 411 008, India
SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1985), 24B(5), 543-6
CODEN: IJSBDB; ISSN: 0376-4699
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 105:97700
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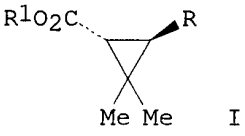

I

AB Title compds. I (R = CH:CClC6H4Cl-p, CH:CHC6H4Cl-p, C.tplbond.CC6H4Cl-p; R1 = CH2C6H4OPh-m) were prepd. from (+)-3-carene.

L4 ANSWER 45 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1985:178240 HCAPLUS
DOCUMENT NUMBER: 102:178240
TITLE: Reversed-phase extraction chromatography of germanium(IV) with tributyl phosphate on silica gel
AUTHOR(S): **Bhosale, S. N.**; Khopkar, S. M.
CORPORATE SOURCE: Dep. Chem., Indian Inst. Technol., Bombay, 400076, India
SOURCE: Talanta (1985), 32(2), 155-7
CODEN: TLNTA2; ISSN: 0039-9140
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Ge(IV) can be sepd. by reversed-phase extn. chromatog. with TBP as stationary phase on a column of silica gel, with 6M HCl as the mobile phase, and stripped with various eluents. Ge can thus be sepd. (by selective extn.) from those elements which are not extractable with TBP, and (by selective stripping) from elements that are extractable.

L4 ANSWER 46 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1984:630006 HCAPLUS
DOCUMENT NUMBER: 101:230006
TITLE: Synthesis of 3-phenoxybenzyl 1R-cis-2,2-dimethyl-3-(acyloxy or alkoxymethyl)cyclopropanecarboxylate from (+)-3-carene
AUTHOR(S): **Bhosale, S. S.**; Mahamulkar, B. G.; Gore, K. G.; Kulkarni, G. H.; Mitra, R. B.
CORPORATE SOURCE: Natl. Chem. Lab., Poona City, 411 008, India
SOURCE: Indian J. Chem., Sect. B (1984), 23B(3), 216-19
CODEN: IJSBDB; ISSN: 0376-4699
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 101:230006
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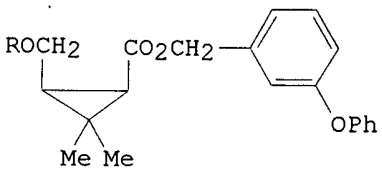
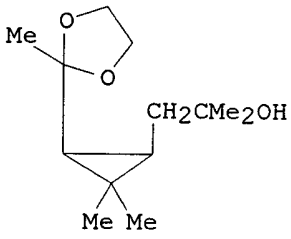


I



II

AB (1R-cis)-Dimethylcyclopropanecarboxylates I (R = Ac, Et) were prepd. from a common intermediate, the dimethyl(ethylenedioxypropyl)cyclopropane II, obtainable from (+)-3-carene.

L4 ANSWER 47 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1984:522076 HCAPLUS

DOCUMENT NUMBER: 101:122076
TITLE: Reversed-phase extractive chromatographic separation of gold(III) with tributyl phosphate
AUTHOR(S): **Bhosale, S. N.**; Khopkar, S. M.
CORPORATE SOURCE: Dep. Chem., Indian Inst. Technol., Bombay, 400 076, India
SOURCE: Indian Journal of Chemistry, Section A: Inorganic, Physical, Theoretical & Analytical (1984), 23A(8), 705-6
CODEN: IJCADU; ISSN: 0376-4710
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The reversed-phase extn. chromatog. studies of Au were carried out on a Bu3PO4-coated silica gel column. Various mineral acids and their salts are not useful for stripping Au from the column. However, a mixt. of HCl (0.5M) and acetone (70%) facilitates such an elution. Sepn. of Au from binary and multicomponent mixts. was successfully carried out.

L4 ANSWER 48 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1984:117002 HCAPLUS
DOCUMENT NUMBER: 100:117002
TITLE: Biochemistry of methane formation from carbohydrates. III. Isolation and characterization of F420 and coenzyme M
AUTHOR(S): Randive, Swati; **Bhosale, S. B.**
CORPORATE SOURCE: Dep. Chem., MACS Res. Inst., Poona City, 411004, India
SOURCE: Biovigyanam (1983), 9(2), 149-53
CODEN: BIOVDZ; ISSN: 0250-507X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Factor F420, the low-potential electron carrier, and coenzyme M, the Me transfer cofactor, which are unique to the metabolic pathways of the methane bacteria, were isolated from mixed cultures of methane bacteria of cattle dung and their chem. and physicochem. properties were studied. Results of anal. of hydrolytic fragments and spectrophotometry of F420 indicate that coenzyme F420 may be: N-[N-[O-[5-(8-hydroxy-5-deazaisoalloxazin-10-yl)-2,3,4-trihydroxy-4-pentoxyhydroxyphosphinyl]-L-lactyl]-.gamma.-L-glutamyl]-L-glutamic acid. The isolated coenzyme M has an absorption max. at 260 nm.

L4 ANSWER 49 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1982:504944 HCAPLUS
DOCUMENT NUMBER: 97:104944
TITLE: Production of chorismate mutase-prephenate dehydrogenase by a strain of Escherichia coli carrying a multicopy, tyrA plasmid. Isolation and properties of the enzyme
AUTHOR(S): **Bhosale, Suresh B.**; Rood, Julian I.; Sneddon, Margaret K.; Morrison, John F.
CORPORATE SOURCE: John Curtin Sch. Med. Res., Australian Natl. Univ., Canberra, 2601, Australia
SOURCE: Biochim. Biophys. Acta (1982), 717(1), 6-11
CODEN: BBACAQ; ISSN: 0006-3002
DOCUMENT TYPE: Journal

LANGUAGE: English
AB A multicopy plasmid that contains the tyrosine operon was used to transform strains of E. coli K-12. The resultant strains yielded levels of chorismate mutase-prephenate dehydrogenase (I) [9044-92-2] that were .ltoreq.5000-fold higher than that given by the parent strain and .apprx.6-fold higher than that given by a tyrR strain. The prodn. of I fell when tetracycline [60-54-8] was omitted from the growth medium because of the loss of the plasmid. The bifunctional I is isolated in good yield by a simple purifn. procedure and shown to possess properties identical to those exhibited by the enzyme from a tyrR strain.

L4 ANSWER 50 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1982:465572 HCAPLUS
DOCUMENT NUMBER: 97:65572
TITLE: Reversed-phase extraction chromatography of molybdenum(VI) with tributyl phosphate on silica gel
AUTHOR(S): **Bhosale, S. N.**; Khopkar, S. M.
CORPORATE SOURCE: Indian Inst. Technol., Bombay, 400 076, India
SOURCE: Indian J. Chem., Sect. A (1982), 21A(2), 147-9
CODEN: IJCADU; ISSN: 0376-4710
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Mo(VI) was sepd. by reversed-phase extn. chromatog. with Bu3PO4 as the stationary phase on a column of silica gel, with 2-6M HCl as the mobile phase. Mo is sepd. from various elements by exploiting the differences in acidities at which these are extractable by Bu3PO4 on the column. Thus, Mo is sepd. from alkali and alk. earth metals, Cr, Mn, Co, Ni, Cu, V, Zr, Th, U, Y, and Ti. The method was extended to the detn. of Mo in alloys.

L4 ANSWER 51 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1982:154525 HCAPLUS
DOCUMENT NUMBER: 96:154525
TITLE: Reversed-phase liquid chromatography of chromium with tributyl phosphate on silica gel
AUTHOR(S): **Bhosale, S. N.**; Khopkar, S. M.
CORPORATE SOURCE: Dep. Chem., Indian Inst. Technol., Bombay, 400076, India
SOURCE: Mikrochim. Acta (1982), 1(5-6), 433-9
CODEN: MIACAQ; ISSN: 0026-3672
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Cr(VI) was sepd. from many metals by reversed-phase extn. chromatog. on columns packed with silica gel and Bu3PO4 as the stationary phase. Cr(VI) was quant. retained from .gtoreq.0.3M HCl and it was eluted by HCl 0.001-0.02, HNO3 0.001-0.5, H2SO4 0.01-1, and NH4Cl 0.001-0.02M or H2O. The method can be used for detg. Cr in alloys, such as stainless steel.

L4 ANSWER 52 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1981:528892 HCAPLUS
DOCUMENT NUMBER: 95:128892
TITLE: Biochemistry of methane formation from carbohydrates. II. Probable enzymic reactions in terminal steps
AUTHOR(S): **Bhosale, S. B.**; Bavadekar, V. K.; Hirwe, Swati; Deshpande, Pradnya; Datar, D. S.

CORPORATE SOURCE: Dep. Chem., Maharashtra Assoc. Cultiv. Sci. Res. Inst., Poona City, 411 004, India
SOURCE: Biovigyanam (1981), 7(1), 47-54
CODEN: BIOVDZ; ISSN: 0250-507X
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 27 refs. of the final steps in CH4 formation by bacteria.

L4 ANSWER 53 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1981:493440 HCAPLUS
DOCUMENT NUMBER: 95:93440
TITLE: Biochemistry of methane formation from carbohydrates. I. Mechanism model and energetics of proposed reactions
AUTHOR(S): **Bhosale, S. B.**; Bavadekar, V. K.; Hirwe, S. M.; Datar, D. S.
CORPORATE SOURCE: Res. Inst., Maharashira Assoc., Poona City, 411 004, India
SOURCE: Biovigyanam (1980), 6(2), 97-104
CODEN: BIOVDZ; ISSN: 0250-507X
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 28 refs. on the anaerobic metab. of carbohydrates by microorganisms to yield CH4.

L4 ANSWER 54 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1980:545210 HCAPLUS
DOCUMENT NUMBER: 93:145210
TITLE: Polyphenoloxidase of Capsicum annum Linn. var. grossa Sendt
AUTHOR(S): **Bhosale, S. B.**; Bavadekar, V. K.
CORPORATE SOURCE: Chem. Dep., Maharashtra Assoc. Cultiv. Sci. Res. Inst., Pune, 411 004, India
SOURCE: Biovigyanam (1980), 6(1), 87-8
CODEN: BIOVDZ; ISSN: 0250-507X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Polyphenol oxidase was purified .apprx.2.5-fold from acetone powder crude exts. of sweet chillies (C. annum) by heat treatment at 50.degree. for 10 min, acetone pptn., and DEAE-cellulose chromatog. The yield was 17% and the final sp. activity was 97.8 units/mg protein. The pH and temp. optimums of the enzyme were 7.0 and 37.degree., resp. Heat inactivation of the oxidase did not occur at temps. 40-60.degree. even after 30 min, but >80% inactivation was obsd. at 90 and 100.degree..

L4 ANSWER 55 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1980:87390 HCAPLUS
DOCUMENT NUMBER: 92:87390
TITLE: Reversed-phase extraction chromatography if iron(III) with tri-n-butyl phosphate on silica gel
AUTHOR(S): **Bhosale, S. N.**; Khopkar, S. M.
CORPORATE SOURCE: Dep. Chem., Indian Inst. Technol., Bombay, 400076, India
SOURCE: Talanta (1979), 26(9), 889-91

CODEN: TLNTA2; ISSN: 0039-9140
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Fe(III) was sepd. by reverse-phase extn. chromatog. with Bu3PO4 as the stationary phase on a column of silica gel, with HCl as the mobile phase. Several sepns. were devised, such as sepn. of Fe(III) from alkali and alk. earth metals, Cr, Mn, Co, Ni, Cu, V, Zr, Th, U, Y, and Ti.

L4 ANSWER 56 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1979:589279 HCAPLUS
DOCUMENT NUMBER: 91:189279
TITLE: Isolation of 7S and 11S proteins from soybean
AUTHOR(S): **Bhosale, S. B.**; Raut, V. M.; Halvankar, G. B.
CORPORATE SOURCE: Res. Inst., Maharashtra Assoc. Cultiv. Sci., Pune, 411 004, India
SOURCE: Biovigyanam (1979), 5(1), 39-42
CODEN: BIOVDZ
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A quick and simple method was developed for the isolation of 7 S and 11 S proteins from soybean in highly purified form and with considerable yield. The method makes use of differences in soly. of the 2 proteins in Mg2+ soln. for their sepn. and (NH4)2SO4 fractionation for purifn. Orthorhombic crystals of 7 S protein were obtained at pH 7.8 and 6.degree. by using 15 mg/mL protein soln.

L4 ANSWER 57 OF 57 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1979:554321 HCAPLUS
DOCUMENT NUMBER: 91:154321
TITLE: Major phospholipids in Cicer arietinum seed
AUTHOR(S): **Bhosale, S. B.**
CORPORATE SOURCE: Res. Inst., Maharashtra Assoc. Cultiv. Sci., Poona, 411 004, India
SOURCE: Biovigyanam (1976), 2(2), 179-82
CODEN: BIOVDZ
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Phosphatidylcholine and phosphatidylethanolamine (21.35 and 10.57%, resp.) were the major phospholipids found in Kessari gram (C. arietinum) seeds. A continuous increase in total phospholipids was obsd. during germination. The continuous increase in phosphatidylethanolamine, however, was concomitant with a continuous decrease in amts. of phosphatidylcholine, suggesting a precursor-product relation.